

SCIENTIFIC REFERENCE BR
Sci & Tech Inf. Cntr
AUG 11 1992

Access DB# 233752

SEARCH REQUEST FORM

Scientific and Technical Information Center

349a

Requester's Full Name: Sin J. Lee Examiner #: 76060 Date: _____
Art Unit: 1752 Phone Number 2-1333 Serial Number: 10/530,349
Mail Box and Bldg/Room Location: 9C15 Results Format Preferred (circle): PAPER DISK E-MAIL
(Rem.)

If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: P12. See Bib.

Inventors (please provide full names): _____

Earliest Priority Filing Date: _____

**For Sequence Searches Only* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

Please search

for a triazine trione compound having

a substituent of formula (2) or (3)

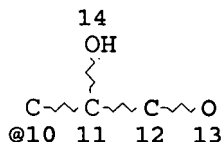
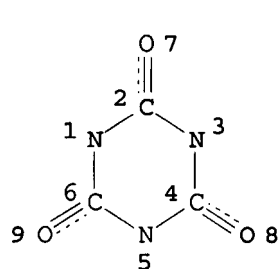
as substituent on nitrogen atom.

(See cl. #1)

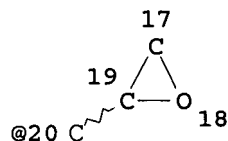


=> => d que 144

L4 198713 SEA FILE=REGISTRY ABB=ON PLU=ON 46.492/RID
 L11 STR



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 @15 16



G1 21

VAR G1=10/15/20

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

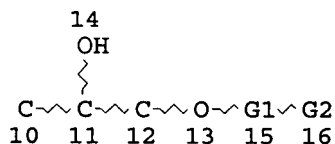
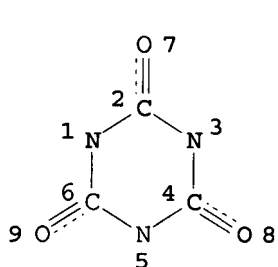
RSPEC I

NUMBER OF NODES IS 21

STEREO ATTRIBUTES: NONE

L13 1699 SEA FILE=REGISTRY SUB=L4 SSS FUL L11

L16 STR



C≡O
 @17 18

Cb~G1~OH
 @19 20 21

REP G1=(0-1) 17

VAR G2=N/19

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RSPEC I

NUMBER OF NODES IS 21

STEREO ATTRIBUTES: NONE

L18 19 SEA FILE=REGISTRY SUB=L13 SSS FUL L16

L44 12 SEA FILE=HCAPLUS ABB=ON PLU=ON L18

=> d l44 1-12 ibib ed abs hitstr hitind

L44 ANSWER 1 OF 12 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:541892 HCAPLUS
 DOCUMENT NUMBER: 145:53315
 TITLE: Method for forming photoresist pattern using
 double layer antireflection film
 INVENTOR(S): Hatanaka, Tadashi
 PATENT ASSIGNEE(S): Nissan Chemical Industries, Ltd., Japan
 SOURCE: PCT Int. Appl., 44 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006059452	A1	20060608	WO 2005-JP20132	20051101
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			

PRIORITY APPLN. INFO.: JP 2004-351351 A 20041203

ED Entered STN: 09 Jun 2006

AB Disclosed is a method for forming a pattern, wherein both photoresist and antireflection film have a rectangular shape, in a lithog. process of semiconductor device production by using an antireflection film which is developable by a photoresist developer liquid. Specifically disclosed is a method for forming a photoresist pattern comprising a step for forming a first antireflection film which is soluble in a photoresist developer liquid; a step for forming, on the first antireflection film, a second antireflection film which is soluble in the photoresist developer liquid and whose dissolving rate in the photoresist developer liquid is lower than that of the first antireflection film; a step for forming a photoresist on the second antireflection film; a step for exposing a semiconductor substrate which is covered with the first antireflection film, the second antireflection film and the photoresist; and a step for developing by using the photoresist developer liquid.

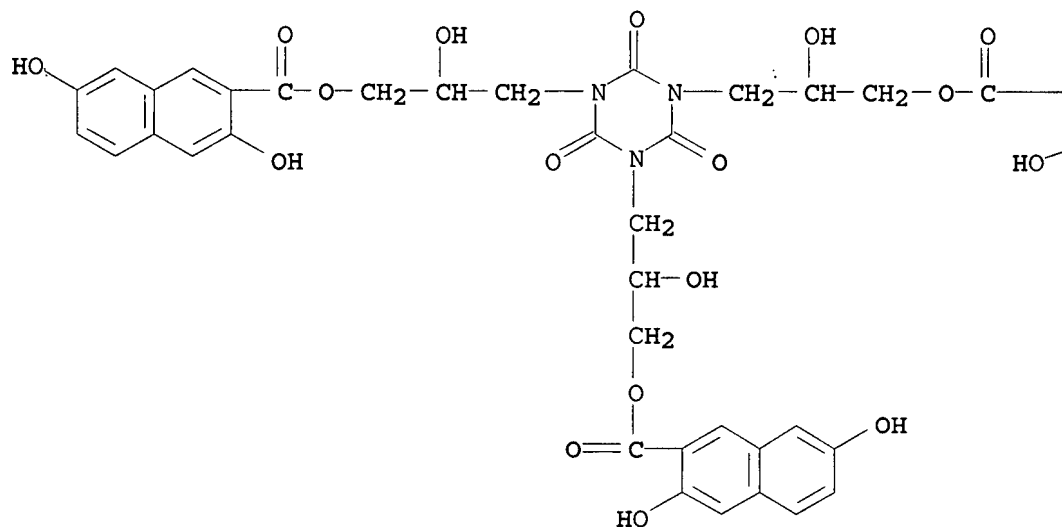
IT 681258-78-6P

(antireflection film forming composition; method for forming photoresist pattern using double layer antireflection film in semiconductor device fabrication process)

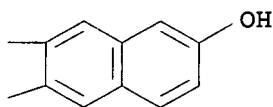
RN 681258-78-6 HCAPLUS

CN 2-Naphthalenecarboxylic acid, 3,7-dihydroxy-, 2,2',2''-[(2,4,6-trioxo-1,3,5-triazine-1,3,5(2H,4H,6H)-triy)]tris(2-hydroxy-3,1-propanediyl)] ester (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 Section cross-reference(s): 38, 73, 76
 IT 681258-78-6P 889868-86-4P
 (antireflection film forming composition; method for forming photoresist pattern using double layer antireflection film in semiconductor device fabrication process)

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L44 ANSWER 2 OF 12 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2005:1241189 HCAPLUS
 DOCUMENT NUMBER: 143:485834
 TITLE: Antireflective film-forming composition containing vinyl ether compound for photoresist pattern
 INVENTOR(S): Hatanaka, Tadashi; Kimura, Shigeo; Enomoto, Tomoyuki
 PATENT ASSIGNEE(S): Nissan Chemical Industries, Ltd., Japan
 SOURCE: PCT Int. Appl., 56 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005111724	A1	20051124	WO 2005-JP8617	20050511
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TD, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1757987	A1	20070228	EP 2005-739255	20050511
R: DE, FR, GB, IT, NL				
CN 1954265	A	20070425	CN 2005-80015398	20050511
PRIORITY APPLN. INFO.:				
			JP 2004-144625	A 20040514
			JP 2004-353627	A 20041207
			WO 2005-JP8617	W 20050511

ED Entered STN: 24 Nov 2005

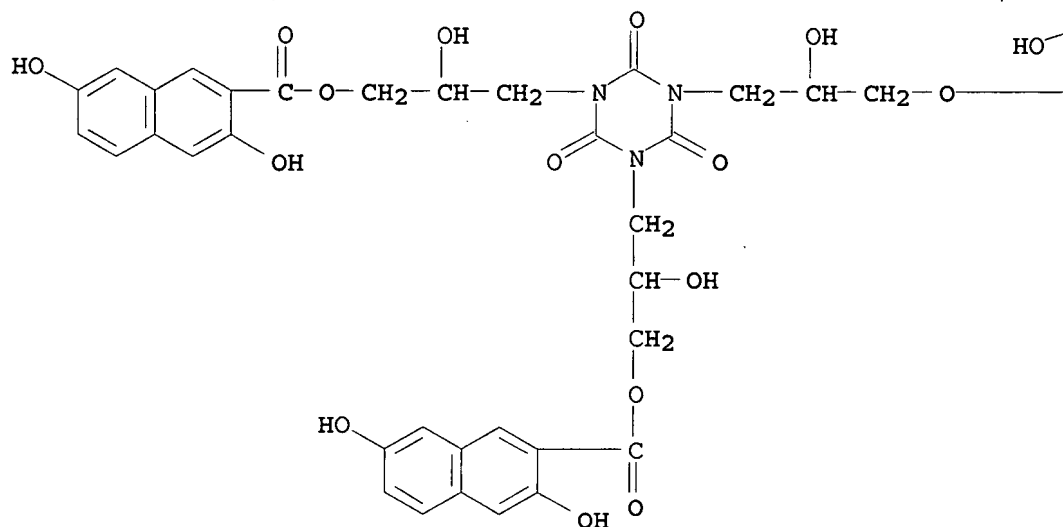
AB Disclosed is an antireflective film-forming composition for forming an antireflective film which is used in the lithog. process during semiconductor device production and can be developed with an alkaline developer for photoresists. Also disclosed is a method for forming a photoresist pattern using such an antireflective film-forming composition. The antireflective film-forming composition contains a compound having at least two vinyl ether groups, an alkali-soluble compound having at least two phenolic hydroxy groups or carboxyl groups, a photoacid generator and a solvent.

IT 869792-92-7P
 (antireflective film-forming composition containing vinyl ether compound for photoresist pattern)

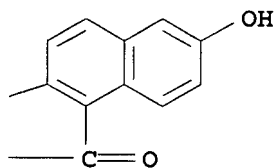
RN 869792-92-7 HCAPLUS

CN 1-Naphthalenecarboxylic acid, 2,6-dihydroxy-, 3-[3,5-bis[3-[(3,7-dihydroxy-2-naphthalenyl)carbonyl]oxy]-2-hydroxypropyl]tetrahydro-2,4,6-trioxo-1,3,5-triazin-1(2H)-yl]-2-hydroxypropyl ester (9CI) (CA INDEX NAME)

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PAGE 1-B



IC ICM G03F007-11
ICS G03F007-20; G03F007-38; H01L021-027
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 76
IT 869792-92-7P 869792-93-8P 869792-94-9P 869792-95-0P
869792-96-1P
(antireflective film-forming composition containing vinyl ether compound for photoresist pattern)

REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L44 ANSWER 3 OF 12 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2005:219904 HCAPLUS
DOCUMENT NUMBER: 142:306447
TITLE: Polyamic acid-containing composition for forming antireflective film
INVENTOR(S): Hatanaka, Tadashi; Enomoto, Tomoyuki; Kimura, Shigeo
PATENT ASSIGNEE(S): Nissan Chemical Industries, Ltd., Japan
SOURCE: PCT Int. Appl., 52 pp.

DOCUMENT TYPE: CODEN: PIXXD2
 LANGUAGE: Patent
 FAMILY ACC. NUM. COUNT: Japanese
 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005022261	A1	20050310	WO 2004-JP12389	20040827
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1666972	A1	20060607	EP 2004-772345	20040827
R: DE, FR, GB, IT, NL				
CN 1842744	A	20061004	CN 2004-80024583	20040827
US 2007004228	A1	20070104	US 2006-569471	20060224
PRIORITY APPLN. INFO.:			JP 2003-304376	A 20030828
			WO 2004-JP12389	W 20040827

ED Entered STN: 11 Mar 2005

AB Disclosed is a composition for forming an antireflective film which is used in the lithog. process in semiconductor device production and can be developed with an alkaline developing solution for photoresists. Also disclosed is a method for forming a photoresist pattern by using such a composition for forming an antireflective film. The composition for forming an antireflective film contains a polyamic acid produced from a tetracarboxylic acid dianhydride compound and a diamine compound having at least one carboxyl group, a compound having at least two epoxy groups and a solvent.

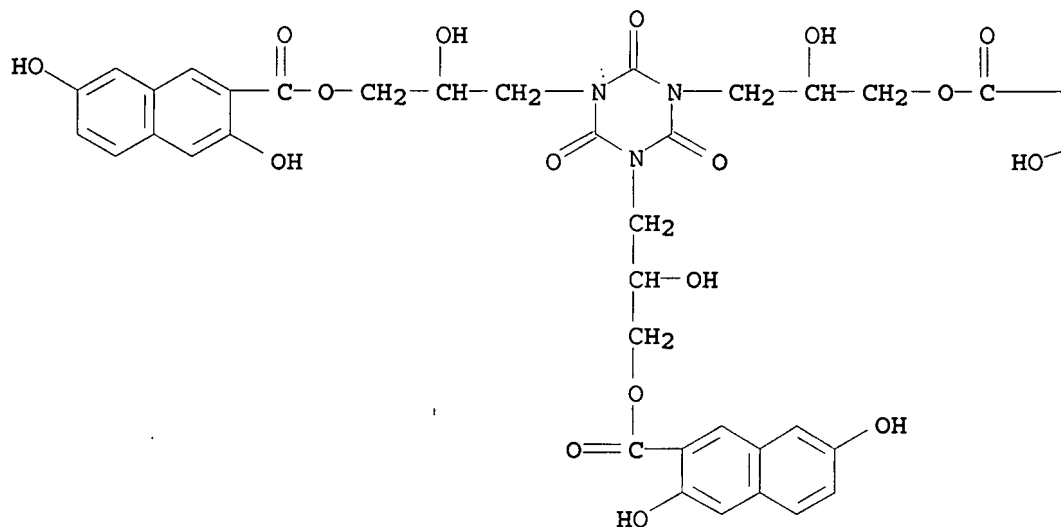
IT 681258-78-6P

(preparation of light-absorbing compound for antireflective film)

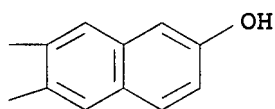
RN 681258-78-6 HCAPLUS

CN 2-Naphthalenecarboxylic acid, 3,7-dihydroxy-, 2,2',2''-[(2,4,6-trioxo-1,3,5-triazine-1,3,5(2H,4H,6H)-trityl)tris(2-hydroxy-3,1-propanediyl)] ester (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



IC ICM G03F007-11
ICS H01L021-027
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 41, 76
IT 681258-78-6P
(preparation of light-absorbing compound for antireflective film)
REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L44 ANSWER 4 OF 12 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:333991 HCAPLUS
DOCUMENT NUMBER: 140:359011
TITLE: Bottom anti-reflective coatings derived from small core molecules with multiple epoxy moieties
INVENTOR(S): Neef, Charles J.; Bhawe, Mandar; Fowler, Michelle; Windsor, Michelle
PATENT ASSIGNEE(S): Brewer Science, Inc., USA
SOURCE: PCT Int. Appl., 31 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004034435	A2	20040422	WO 2003-US332091	20031007
WO 2004034435	A3	20050728		
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US 2004110089	A1	20040610	US 2003-679521	<u>20031006</u>
AU 2003282554	A1	20040504	AU 2003-282554	20031007
EP 1573785	A2	20050914	EP 2003-774743	20031007
EP 1573785	A3	20050921		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2006502448	T	20060119	JP 2004-543632	20031007
CN 1739063	A	20060222	CN 2003-80104562	20031007
PRIORITY APPLN. INFO.:				
			US 2002-417214P	P 20021008
			US 2003-679521	A 20031006
			WO 2003-US32091	W 20031007

OTHER SOURCE(S): MARPAT 140:359011

ED Entered STN: 23 Apr 2004

AB Novel anti-reflective coatings comprising small mols. (e.g., less than about 5000 g/mol) in lieu of high mol. weight polymers and methods of using those coatings are provided. In one embodiment, aromatic carboxylic acids are used as the chromophores, and the resulting compds. are blended with a crosslinking agent and an acid. Anti-reflective coating films prepared according to the invention exhibit improved properties compared to high mol. weight polymeric anti-reflective coating films. The small mol. anti-reflective coatings have high etch rates and good via fill properties. Photolithog. processes carried out with the inventive material result in freestanding, 110-nm profiles. Thus, heating tris(2,3-epoxypropyl)isocyanurate 17.84 with 4-hydroxybenzoic acid 24.86, benzyltriethylammonium chloride 1.03 and propylene glycol Pr ether 384.3 g at 120° for 16 h under N and mixing the resulting mother liquor 20 with Powderlink 1174 (crosslinking agent) 0.50, p-toluenesulfonic acid 0.06 g, propylene glycol Pr ether 10.84 and Et lactate 28.84 g gave a coating which was coated on a wafer, baked at 205° for seconds, sprayed with Et acetate or propylene glycol monomethyl ether acetate and spin dried to give a coat film with good claimed properties.

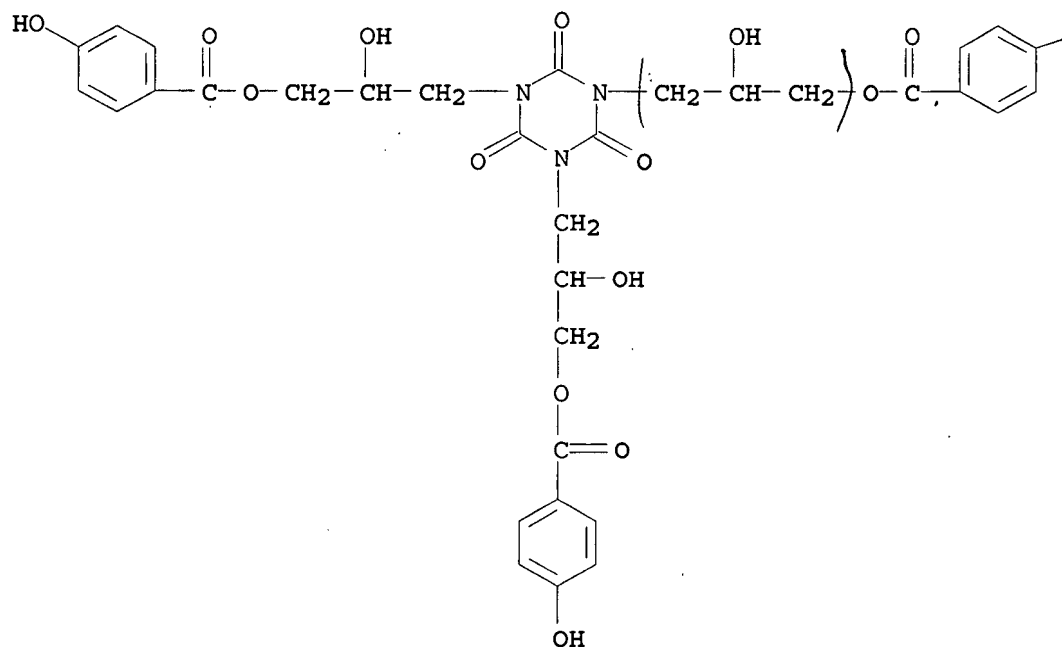
IT 681258-74-2P

(bottom anti-reflective coatings derived from small core mols. with multiple epoxy moieties)

RN 681258-74-2 HCAPLUS

CN Benzoic acid, 4-hydroxy-, (2,4,6-trioxo-1,3,5-triazine-1,3,5(2H,4H,6H)-triy1)tris(2-hydroxy-3,1-propanediyl) ester (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

—OH

IT 681258-75-3P 681258-78-6P 681258-79-7P
 (bottom anti-reflective coatings derived from small core mols. with multiple epoxy moieties)
 RN 681258-75-3 HCAPLUS
 CN Benzoic acid, 4-hydroxy-, (2,4,6-trioxo-1,3,5-triazine-1,3,5(2H,4H,6H)-triyl)tris(2-hydroxy-3,1-propanediyl) ester, polymer with tetrahydro-1,3,4,6-tetrakis(methoxymethyl)imidazo[4,5-d]imidazole-2,5(1H,3H)-dione (9CI) (CA INDEX NAME)

CM 1

CRN 681258-74-2

CMF C33 H33 N3 O15



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Bib Data Sheet

CONFIRMATION NO. 7775

SERIAL NUMBER 10/530,349	FILING OR 371(c) DATE 04/06/2005 RULE	CLASS 430	GROUP ART UNIT 1752	ATTORNEY DOCKET NO. 123418
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APPLICANTS

Takahiro Kishioka, Nei-gun, JAPAN;
 Ken-ichi Mizusawa, Chiyoda-ku, JAPAN;
 Tomoyuki Enomoto, Nei-gun, JAPAN;
 Rikimaru Sakamoto, Nei-gun, JAPAN;
 Keisuke Nakayama, Nei-gun, JAPAN;
 Yasuo Kawamura, Funabashi-shi, JAPAN;

** CONTINUING DATA *****

This application is a 371 of PCT/JP03/12875 10/08/2003 *KIA*

** FOREIGN APPLICATIONS *****

JAPAN 2002-295777 10/09/2002
 JAPAN 2003-126886 05/02/2003 *KIA*

IF REQUIRED, FOREIGN FILING LICENSE GRANTED **
 09/18/2006

Foreign Priority claimed <input checked="" type="checkbox"/> yes <input type="checkbox"/> no	STATE OR COUNTRY JAPAN	SHEETS DRAWING 0	TOTAL CLAIMS 19	INDEPENDENT CLAIMS 1
35 USC 119 (a-d) conditions met <input checked="" type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> Met after Allowance				
Verified and Acknowledged <i>KIA</i> Examiner's Signature	Initials <i>KIA</i>			

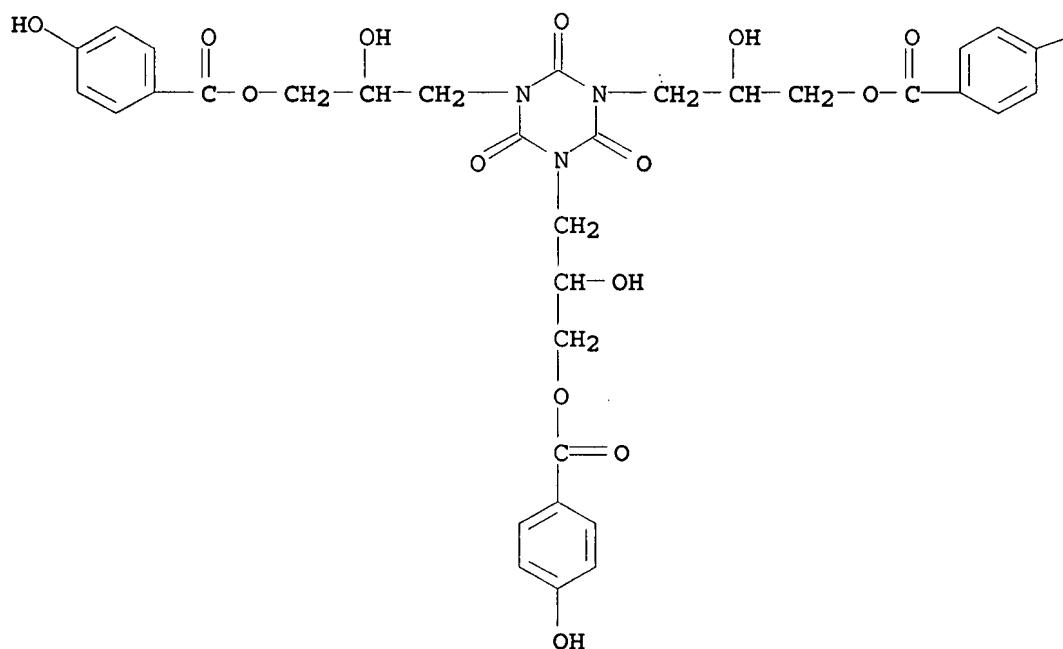
ADDRESS
 25944

TITLE

Composition for forming anti-reflective coating for use in lithography

FILING FEE RECEIVED 1030	FEES: Authority has been given in Paper No. _____ to charge/credit DEPOSIT ACCOUNT No. _____ for following:	<input type="checkbox"/> All Fees
		<input type="checkbox"/> 1.16 Fees (Filing)
		<input type="checkbox"/> 1.17 Fees (Processing Ext. of time)
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PAGE 1-A



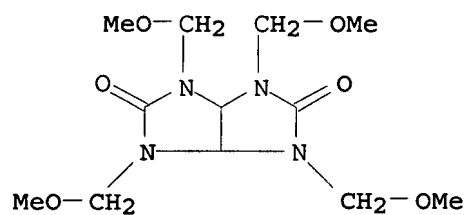
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—OH

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CRN 17464-88-9

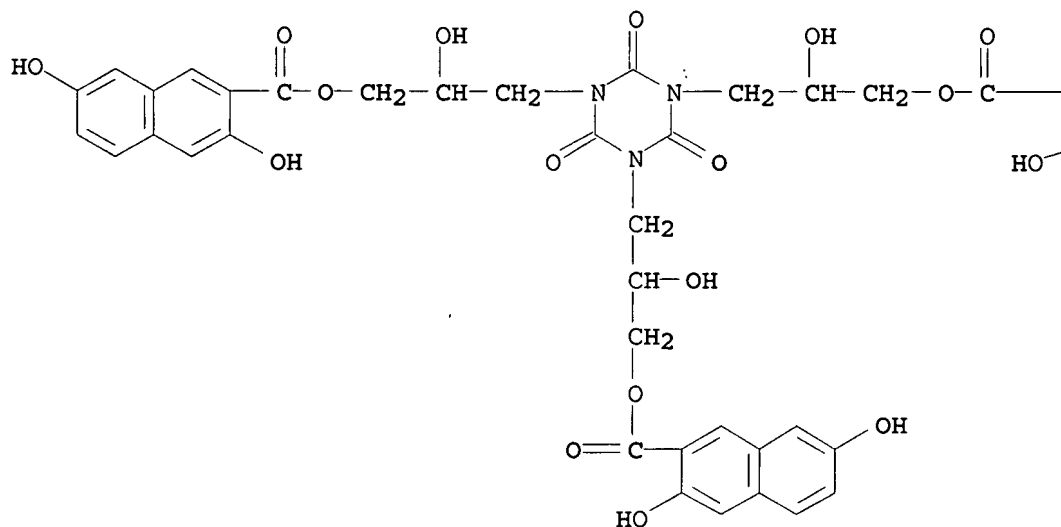
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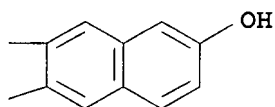
RN 681258-78-6 HCAPLUS

CN 2-Naphthalenecarboxylic acid, 3,7-dihydroxy-, 2,2',2''-[(2,4,6-trioxo-1,3,5-triazine-1,3,5(2H,4H,6H)-triyl)tris(2-hydroxy-3,1-propanediyl)] ester (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

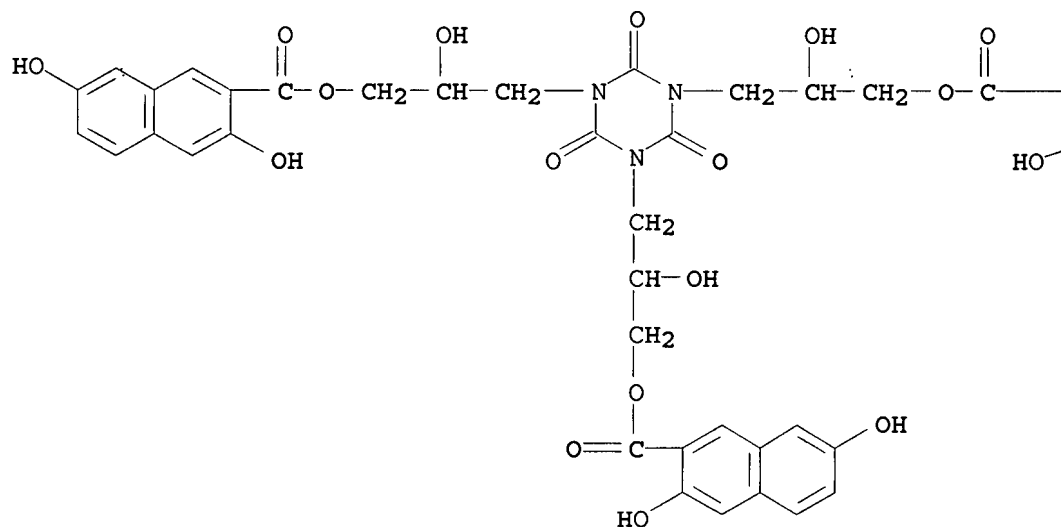


RN 681258-79-7 HCAPLUS
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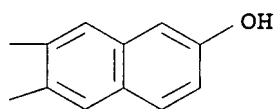
CM 1

CRN 681258-78-6
 CMF C45 H39 N3 O18

PAGE 1-A



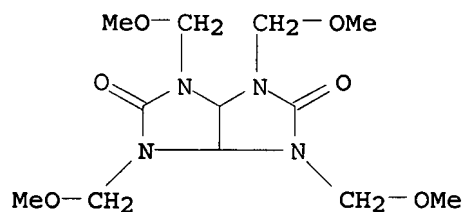
PAGE 1-B



CM 2

CRN 17464-88-9

CMF C12 H22 N4 O6



IC ICM H01L

CC 42-9 (Coatings, Inks, and Related Products)

Section cross-reference(s): 74, 76

IT **681258-74-2P** 681258-76-4P 681258-80-0P 681437-59-2P
 (bottom anti-reflective coatings derived from small core mols. with multiple epoxy moieties)

IT **681258-75-3P** 681258-77-5P **681258-78-6P**
681258-79-7P 681258-81-1P 681437-62-7P

(bottom anti-reflective coatings derived from small core mols. with multiple epoxy moieties)

L44 ANSWER 5 OF 12 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:120819 HCAPLUS

DOCUMENT NUMBER: 140:165096

TITLE: Fluorinated urethane compounds and compositions containing the same

INVENTOR(S): Yamamoto, Ikuo; Kusumi, Kayo; Yoshioka, Takuya; Yamaguchi, Fumihiko

PATENT ASSIGNEE(S): Daikin Industries, Ltd., Japan

SOURCE: PCT Int. Appl., 25 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004013089	A1	20040212	WO 2003-JP9903	20030805
W:				
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RW:				
GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2493985	A1	20040212	CA 2003-2493985	20030805
AU 2003252390	A1	20040223	AU 2003-252390	20030805
EP 1548001	A1	20050629	EP 2003-766731	20030805
R:				
AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
CN 1675176	A	20050928	CN 2003-819020	20030805
US 2006091351	A1	20060504	US 2005-523518	20050204
PRIORITY APPLN. INFO.:			JP 2002-228795	A 20020806
			WO 2003-JP9903	W 20030805

ED Entered STN: 13 Feb 2004

AB Fluorinated urethane compds. [RfA1(X1(OH))(Y1)a-OC(:O)NH]mI[NHC(:O)OY2]n[NHC(:O)O((ClCH2)X2O)bR1]k can impart high water- and oil-repellency, wherein I = a group derived from a polyisocyanate compound by removing the isocyanato groups; Rf = C2-21 perfluoroalkyl; A1 = a direct bond or C1-21 divalent organic group; X1, X2 = C2-5 trivalent, linear or branched aliphatic group; Y1 = a divalent organic group containing C0-5, N0-2, and ≥1 hydrogen atom (≥1 carbon atom or ≥1 nitrogen atom must be present); Y2 = a monovalent organic group which may have a hydroxyl group; and R1 = H or C1-10 alkyl. Thus, 20.1 g 3-perfluorooctyl-1,2-propanediol obtained from 3-perfluorooctyl-1,2-epoxypropane and 7.79 g Sumidur N 3300 were reacted to give 25.3 g hydroxy-containing perfluorooctylpropyl substituted hexamethylene diisocyanate isocyanurate, 5 g of which was emulsified in the presence of polyethylene glycol alkyl ether and sodium α-olefinsulfonate, applied on a carpet and heat-cured to give a

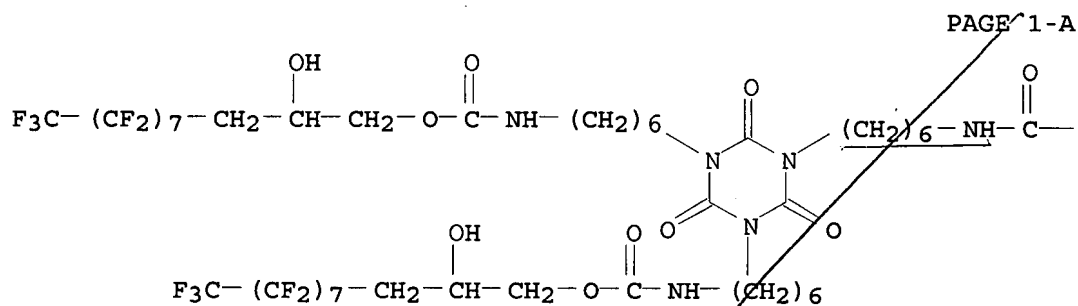
test piece showing good water and oil repellency and anticontamination.

IT 653600-17-0P

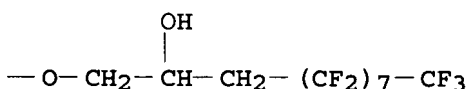
(preparation of fluorinated urethane compds. for compns.)

RN 653600-17-0 HCAPLUS

CN Carbamic acid, [(2,4,6-trioxo-1,3,5-triazine-1,3,5(2H,4H,6H)-triyl)tri-6,1-hexanediyl]tris-, tris(4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,11-heptadecafluoro-2-hydroxyundecyl) ester (9CI) (CA INDEX NAME)



PAGE 1-B



IT 653600-18-1

(preparation of fluorinated urethane compds. for compns.)

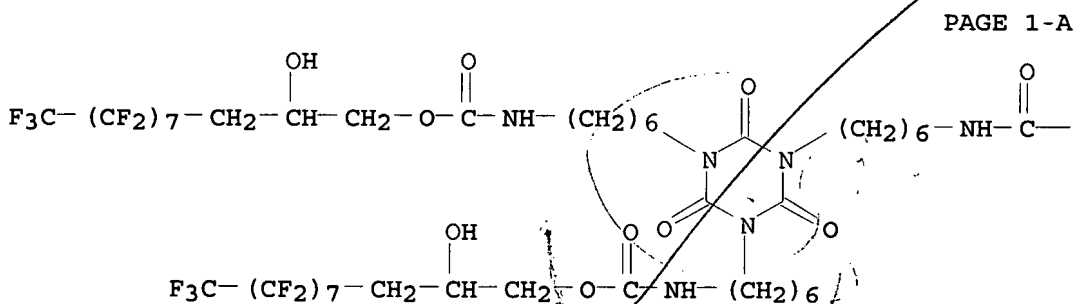
RN 653600-18-1 HCAPLUS

CN Carbamic acid, [(2,4,6-trioxo-1,3,5-triazine-1,3,5(2H,4H,6H)-triyl)tri-6,1-hexanediyl]tris-, tris(4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,11-heptadecafluoro-2-hydroxyundecyl) ester, homopolymer (9CI) (CA INDEX NAME)

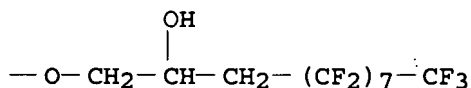
CM 1

CRN 653600-17-0

CMF C57 H57 F51 N6 O12



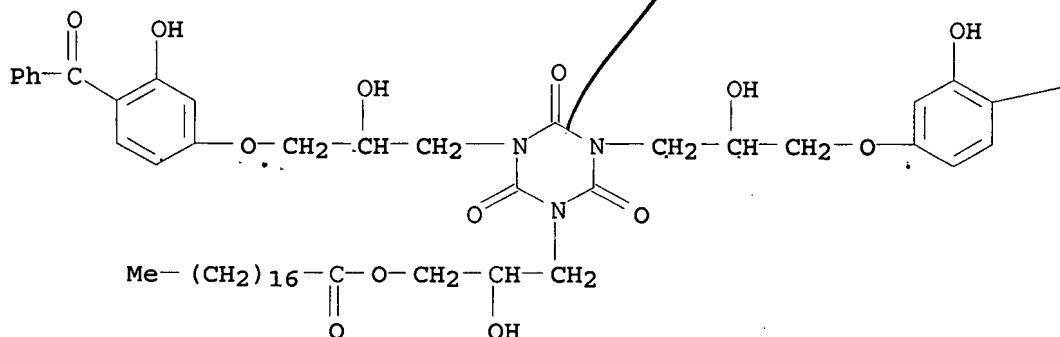
PAGE 1-B



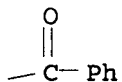
IC ICM C07C275-62
 ICS C09K003-00; C09K003-18; C07D251-34; D06M015-576
 CC 38-3 (Plastics Fabrication and Uses)
 Section cross-reference(s): 40
 IT 653600-17-0P 653600-19-2P
 (preparation of fluorinated urethane compds. for compns.)
 IT 653600-18-1
 (preparation of fluorinated urethane compds. for compns.)

L44 ANSWER 6 OF 12 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2001:874760 HCAPLUS
 DOCUMENT NUMBER: 136:342504
 TITLE: Synthesis of the ultraviolet absorber UV-1009
 AUTHOR(S): Yi, Bing; Lin, Yuan-bin; Guo, Xian-luo
 CORPORATE SOURCE: Dep. Chem., Hunan Eng. Inst., Xiangtan, 411101, Peop. Rep. China
 SOURCE: Jingxi Huagong Zhongjianti (2001), 31(4), 9-10
 CODEN: JHZIAR; ISSN: 1009-9212
 PUBLISHER: Jingxi Huagong Zhongjianti Zazhishe
 DOCUMENT TYPE: Journal
 LANGUAGE: Chinese
 ED Entered STN: 05 Dec 2001
 AB A new high relative mol. mass UV absorber UV-1009 was prepared by using urea as starting material, which is converted into isocyanuric acid via pyrolysis condensation. The latter reacts with epichlorohydrin, octadecanoic acid and 2,4-dihydroxybenzophenone in turn. The total yield of product is over 76%.
 IT 84139-15-1P, UV 1009
 (UV 1009; synthesis of UV absorber UV 1009)
 RN 84139-15-1 HCAPLUS
 CN Octadecanoic acid, 3-[3,5-bis[3-(4-benzoyl-3-hydroxyphenoxy)-2-hydroxypropyl]tetrahydro-2,4,6-trioxo-1,3,5-triazin-1(2H)-yl]-2-hydroxypropyl ester (9CI) (CA INDEX NAME)

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CC 45-4 (Industrial Organic Chemicals, Leather, Fats, and Waxes)

Section cross-reference(s): 37

IT 84139-15-1P, UV 1009

(UV 1009; synthesis of UV absorber UV 1009)

L44 ANSWER 7 OF 12 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1999:650530 HCAPLUS

DOCUMENT NUMBER: 131:279194

TITLE: Isocyanurate wide range UV-absorber for thin film

INVENTOR(S): Samukawa, Seiji

PATENT ASSIGNEE(S): Kyodo Chemical Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

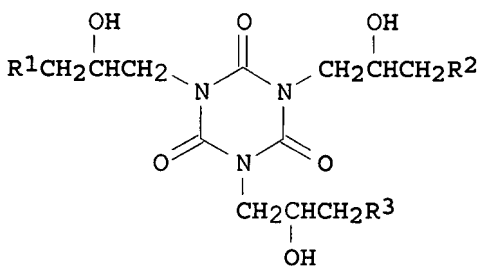
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 11279523	A	19991012	JP 1998-121594	19980326
PRIORITY APPLN. INFO.:			JP 1998-121594	19980326

OTHER SOURCE(S): MARPAT 131:279194

ED Entered STN: 13 Oct 1999

GI



I

AB The isocyanurate wide range UV-absorber for thin film has structure I (R1-3 = aromatic substituent). The UV absorber shows the excellent co-solubility with a polymer to form a thin film.

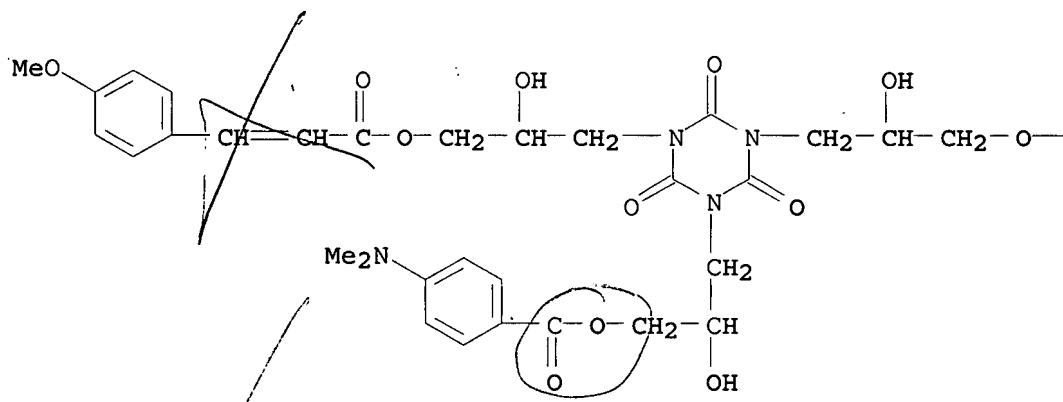
IT 245504-65-8P 245512-31-6P 245512-32-7P

(isocyanurate wide range UV-absorber for thin film)

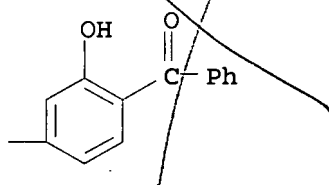
RN 245504-65-8 HCAPLUS

CN Benzoic acid, 4-(dimethylamino)-, 3-[3-[3-(4-benzoyl-3-hydroxyphenoxy)-2-hydroxypropyl]tetrahydro-5-[2-hydroxy-3-[[3-(4-methoxyphenyl)-1-oxo-2-propenyl]oxy]propyl]-2,4,6-trioxo-1,3,5-triazin-1(2H)-yl]-2-hydroxypropyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

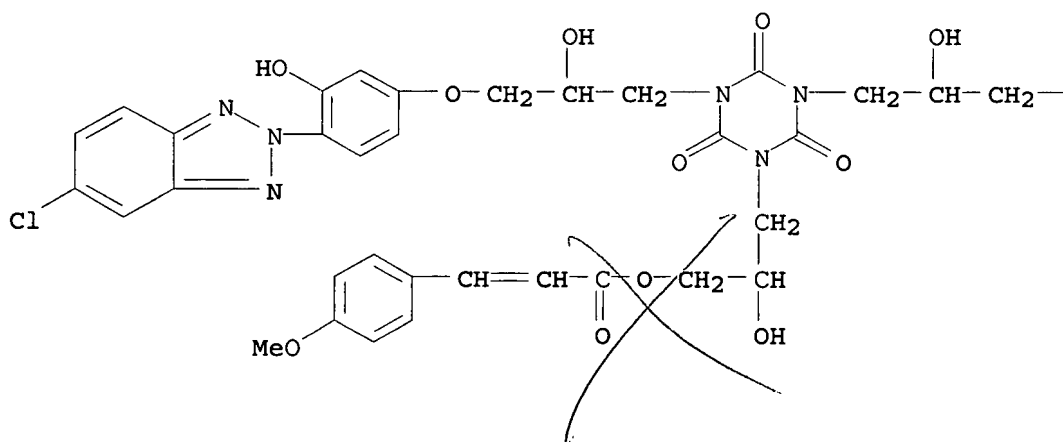


PAGE 1-B

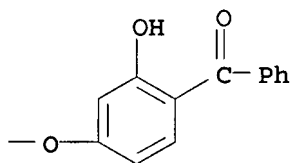


RN 245512-31-6 HCAPLUS
 CN 2-Propenoic acid, 3-(4-methoxyphenyl)-, 3-[3-[3-(4-benzoyl-3-hydroxyphenoxy)-2-hydroxypropyl]-5-[3-[4-(5-chloro-2H-benzotriazol-2-yl)-3-hydroxyphenoxy]-2-hydroxypropyl]tetrahydro-2,4,6-trioxo-1,3,5-triazin-1(2H)-yl]-2-hydroxypropyl ester (9CI) (CA INDEX NAME)

PAGE 1-A



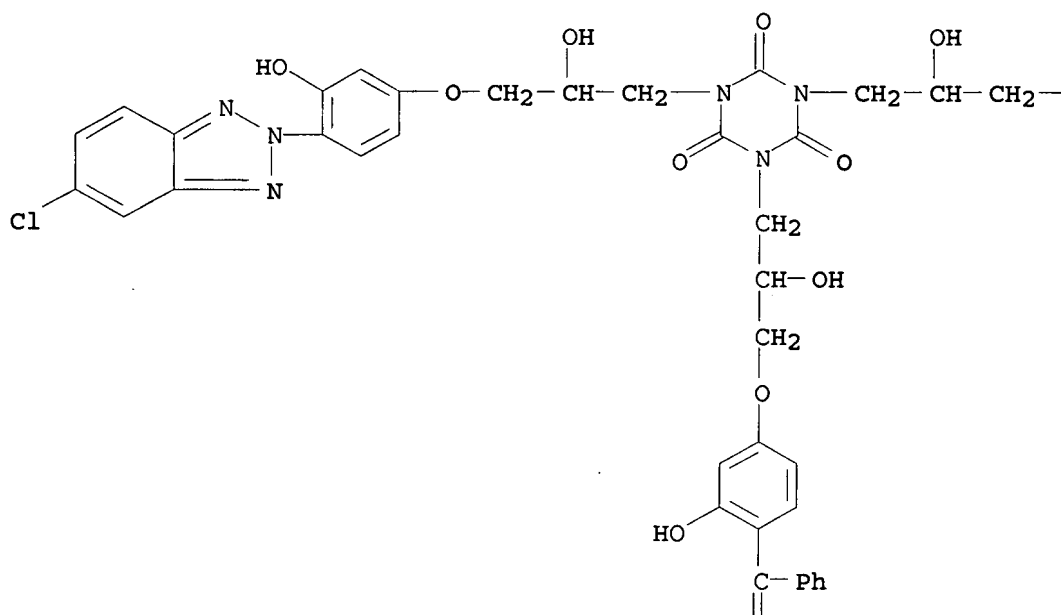
PAGE 1-B



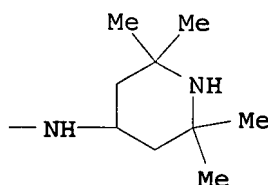
RN 245512-32-7 HCAPLUS

CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1-[3-(4-benzoyl-3-hydroxyphenoxy)-2-hydroxypropyl]-3-[3-[4-(5-chloro-2H-benzotriazol-2-yl)-3-hydroxyphenoxy]-2-hydroxypropyl]-5-[2-hydroxy-3-[(2,2,6,6-tetramethyl-4-piperidiny)amino]propyl]- (9CI) (CA INDEX NAME)

PAGE 1-A



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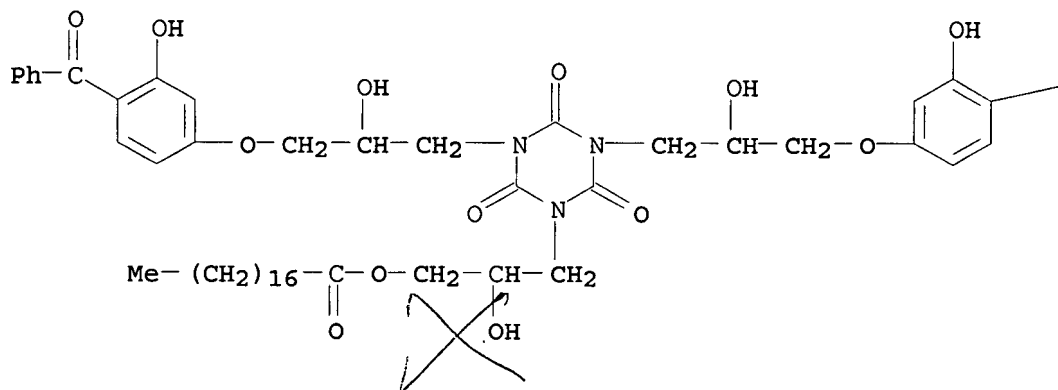
PAGE 2-A



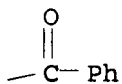
IC ICM C09K003-00
 ICS C07D251-34; C07D401-14; C07D487-04; C07D519-00
 CC 74-1 (Radiation Chemistry, Photochemistry, and Photographic and Other
 Reprographic Processes)
 Section cross-reference(s): 42
 IT 245504-65-8P 245512-31-6P 245512-32-7P
 (isocyanurate wide range UV-absorber for thin film)

L44 ANSWER 8 OF 12 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1995:589843 HCAPLUS
 DOCUMENT NUMBER: 123:171315
 TITLE: Synthesis of high molecular weight ultraviolet
 Absorbent UV-1009
 AUTHOR(S): Zhu, Xu'en; Yu, Hong
 CORPORATE SOURCE: Department Chemical Engineering, Northwest
 University, Xi'an, 710069, Peop. Rep. China
 SOURCE: Xibei Daxue Xuebao, Ziran Kexueban (1995), 25(1),
 75-7
 CODEN: HPHPAQ; ISSN: 1000-274X
 PUBLISHER: Xibei Daxue Xuebao Bianjibu
 DOCUMENT TYPE: Journal
 LANGUAGE: Chinese
 ED Entered STN: 06 Jun 1995
 AB In the presence of catalyst, high mol. weight UV absorbent UV-1009 was
 synthesized from tris(2,3-epoxypropyl) isocyanurate, higher fatty
 acids and 2,4-dihydroxybenzophenone. In the optimum synthetic
 condition the yield was 89.9%.
 IT 84139-15-1P, UV 1009
 (synthesis of high mol. weight UV absorbent UV-1009)
 RN 84139-15-1 HCAPLUS
 CN Octadecanoic acid, 3-[3,5-bis[3-(4-benzoyl-3-hydroxyphenoxy)-2-
 hydroxypropyl]tetrahydro-2,4,6-trioxo-1,3,5-triazin-1(2H)-yl]-2-
 hydroxypropyl ester (9CI) (CA INDEX NAME)

PAGE 1-A



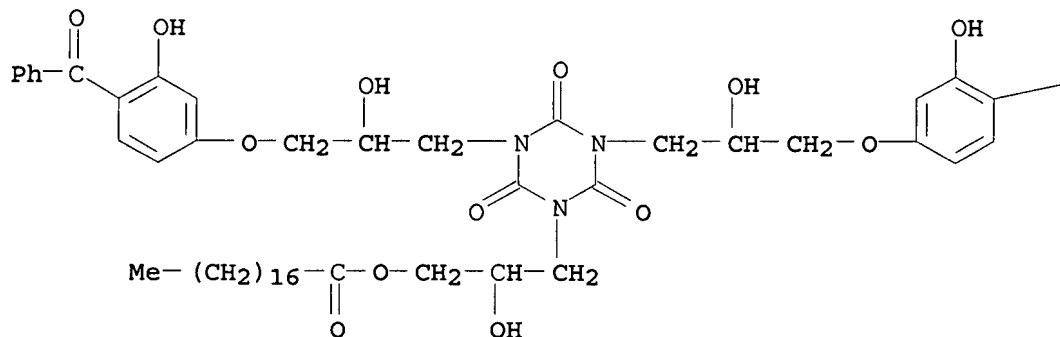
PAGE 1-B



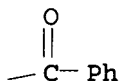
CC 37-6 (Plastics Manufacture and Processing)
 IT 131-56-6DP, 2,4-Dihydroxybenzophenone, reaction products with
 tris(2,3-epoxypropyl) isocyanurate and fatty acid 2451-62-9DP,
 Tris(2,3-epoxypropyl) isocyanurate, reaction products with
 2,4-dihydroxybenzophenone and fatty acid 84139-15-1P, UV
 1009
 (synthesis of high mol. weight UV absorbent UV-1009)

L44 ANSWER 9 OF 12 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1995:23295 HCAPLUS
 DOCUMENT NUMBER: 122:241304
 TITLE: Properties and application of UV-981 and UV-1009
 ultraviolet absorbers
 AUTHOR(S): Zhu, Huen; Yu, Hong; Li, Guozhong
 CORPORATE SOURCE: Dep. Chem. Eng., Northwest Univ., Xi'an, 710069,
 Peop. Rep. China
 SOURCE: Xibei Daxue Xuebao, Ziran Kexueban (1994), 24(2),
 127-32
 CODEN: HPHPAQ; ISSN: 1000-274X
 DOCUMENT TYPE: Journal
 LANGUAGE: Chinese
 ED Entered STN: 08 Nov 1994
 AB The IR and UV-visible spectra, toxicity, compatibility, heat
 resistance, water resistance, and aging resistance of
 benzophenone-type light stabilizers UV-981 and UV-1009
 benzophenone-type light stabilizers for polymers are discussed.
 IT 84139-15-1, UV 1009
 (properties and application of UV-981 and UV-1009 benzophenone-type
 light stabilizers for polymers)
 RN 84139-15-1 HCAPLUS
 CN Octadecanoic acid, 3-[3,5-bis[3-(4-benzoyl-3-hydroxyphenoxy)-2-
 hydroxypropyl]tetrahydro-2,4,6-trioxo-1,3,5-triazin-1(2H)-yl]-2-
 hydroxypropyl ester (9CI) (CA INDEX NAME)

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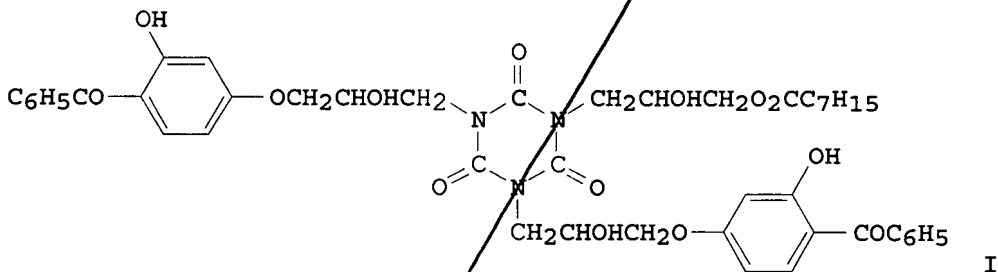


CC 37-6 (Plastics Manufacture and Processing)
 IT 119-61-9D, Benzophenone, derivs. 84139-15-1, UV 1009
 162261-57-6, UV 981
 (properties and application of UV-981 and UV-1009 benzophenone-type
 light stabilizers for polymers)

L44 ANSWER 10 OF 12 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1983:35530 HCAPLUS
 DOCUMENT NUMBER: 98:35530
 TITLE: Stabilized resin compositions
 PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 57117564	A	19820722	JP 1981-3657	19810112
JP 63046108	B	19880913		
PRIORITY APPLN. INFO.:			JP 1981-3657	19810112

ED Entered STN: 12 May 1984
 GI



AB triglycidyl isocyanurate [2451-62-9] Reacts with fatty acids, or
 amines and 2,4-dihydroxybenzophenone [131-56-6] to prepare light
 stabilizers for polypropylene [9003-07-0] and PVC [9002-86-2].
 Thus, a film prepared from PVC 100, DOP 48, an epoxidized soybean oil 2,
 Ca stearate 1, Zn stearate 0.1, and I [84139-19-5] 0.2 part
 was irradiated 300 h in a carbon arc sunshine weather meter to give a
 light yellow color, whereas a similar film containing no I gave a
 blackish-brown color.

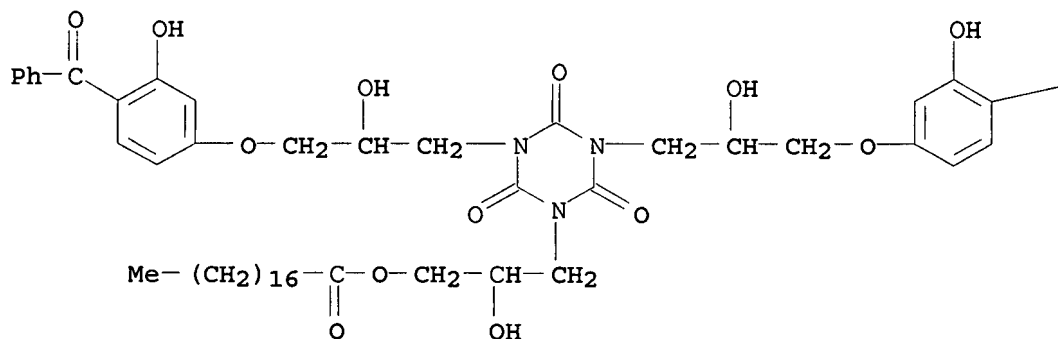
IT 84139-15-1 84139-16-2 84139-17-3
 84139-18-4 84139-19-5

(light stabilizers, for PVC and polypropylene)

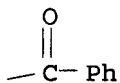
RN 84139-15-1 HCAPLUS

CN Octadecanoic acid, 3-[3,5-bis[3-(4-benzoyl-3-hydroxyphenoxy)-2-hydroxypropyl]tetrahydro-2,4,6-trioxo-1,3,5-triazin-1(2H)-yl]-2-hydroxypropyl ester (9CI) (CA INDEX NAME)

PAGE 1-A



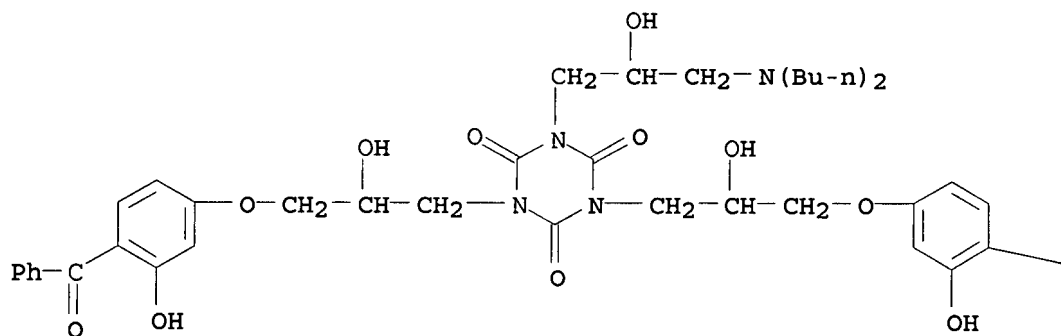
PAGE 1-B



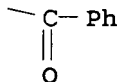
RN 84139-16-2 HCAPLUS

CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3-bis[3-(4-benzoyl-3-hydroxyphenoxy)-2-hydroxypropyl]-5-[3-(dibutylamino)-2-hydroxypropyl]- (9CI) (CA INDEX NAME)

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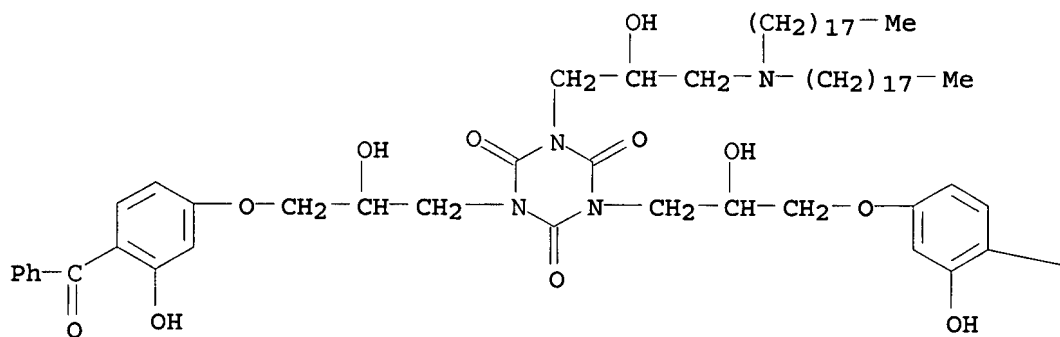
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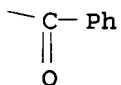
RN 84139-17-3 HCAPLUS

CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3-bis[3-(4-benzoyl-3-hydroxyphenoxy)-2-hydroxypropyl]-5-[3-(dioctadecylamino)-2-hydroxypropyl]- (9CI) (CA INDEX NAME)

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RN 84139-18-4 HCAPLUS

CN Octadecanoic acid, [5-[3-(4-benzoyl-3-hydroxyphenoxy)-2-hydroxypropyl]dihydro-2,4,6-trioxo-1,3,5-triazine-1,3(2H,4H)-diyl]bis(2-hydroxy-3,1-propanediyl) ester (9CI) (CA INDEX NAME)



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Bib Data Sheet

CONFIRMATION NO. 7775

SERIAL NUMBER	FILING OR 371(c) DATE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.
10/530,349	04/06/2005	430	1752	123418
RULE				

APPLICANTS

Takahiro Kishioka, Nei-gun, JAPAN;
 Ken-ichi Mizusawa, Chiyoda-ku, JAPAN;
 Tomoyuki Enomoto, Nei-gun, JAPAN;
 Rikimaru Sakamoto, Nei-gun, JAPAN;
 Keisuke Nakayama, Nei-gun, JAPAN;
 Yasuo Kawamura, Funabashi-shi, JAPAN;

** CONTINUING DATA *****

This application is a 371 of PCT/JP03/12875 10/08/2003 *STL*

** FOREIGN APPLICATIONS *****

JAPAN 2002-295777 10/09/2002
 JAPAN 2003-126886 05/02/2003 *STL*

IF REQUIRED, FOREIGN FILING LICENSE GRANTED **
 09/18/2006

Foreign Priority claimed <input checked="" type="checkbox"/> yes <input type="checkbox"/> no	STATE OR COUNTRY JAPAN	SHEETS DRAWING 0	TOTAL CLAIMS 19	INDEPENDENT CLAIMS 1
35 USC 119 (a-d) conditions met <input checked="" type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> Met after Allowance				
Verified and Acknowledged <i>ASH</i> Examiner's Signature Initials				

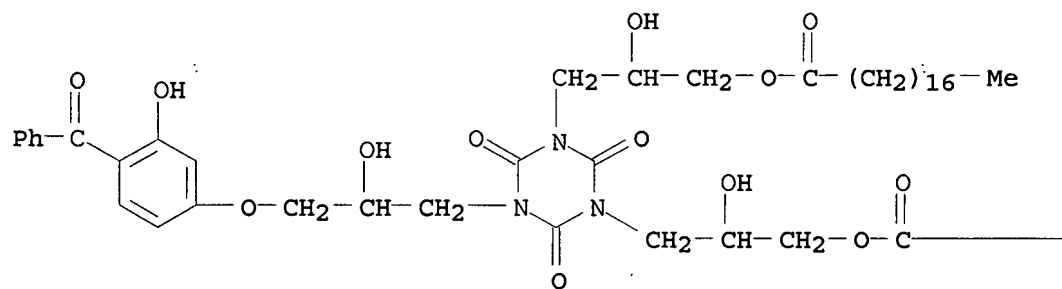
ADDRESS
 25944

TITLE

Composition for forming anti-reflective coating for use in lithography

FILING FEE RECEIVED 1030	FEES: Authority has been given in Paper No. _____ to charge/credit DEPOSIT ACCOUNT No. _____ for following:	<input type="checkbox"/> All Fees
		<input type="checkbox"/> 1.16 Fees (Filing)
		<input type="checkbox"/> 1.17 Fees (Processing Ext. of time)
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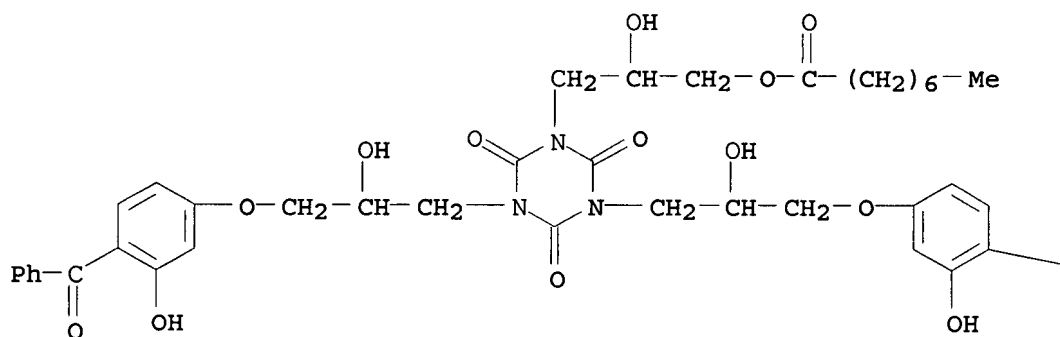
PAGE 1-B

— $(\text{CH}_2)_{16}\text{Me}$

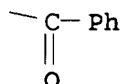
RN 84139-19-5 HCAPLUS

CN Octanoic acid, 3-[3,5-bis[3-(4-benzoyl-3-hydroxyphenoxy)-2-hydroxypropyl]tetrahydro-2,4,6-trioxo-1,3,5-triazin-1(2H)-yl]-2-hydroxypropyl ester (9CI) (CA INDEX NAME)

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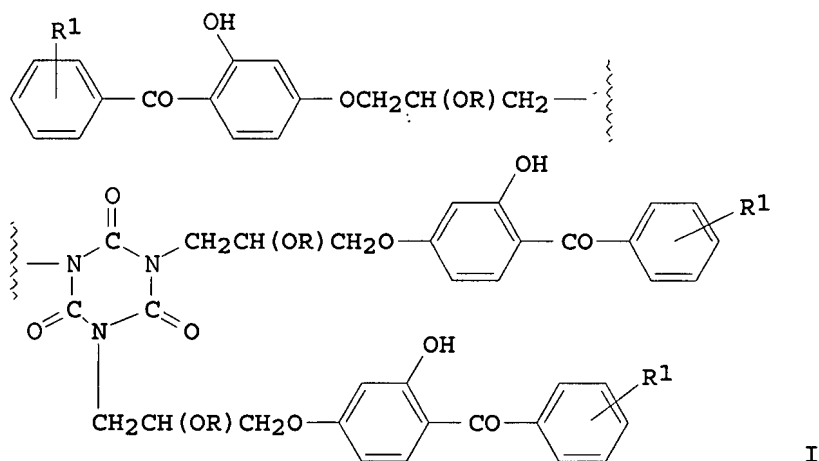


IC C08L101-00; C08K005-34
CC 37-6 (Plastics Manufacture and Processing)
IT 84139-15-1 84139-16-2 84139-17-3
84139-18-4 84139-19-5
(light stabilizers, for PVC and polypropylene)

L44 ANSWER 11 OF 12 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1982:473406 HCAPLUS
DOCUMENT NUMBER: 97:73406
TITLE: Light stabilizers
PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
JP 57042742	A	19820310	JP 1980-118183	19800826
JP 62045894	B	19870929		
PRIORITY APPLN. INFO.:			JP 1980-118183	19800826

ED Entered STN: 12 May 1984
GI



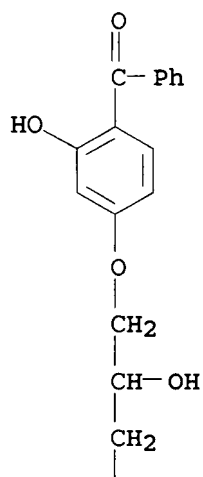
AB Compds. I (R = H, R1 = H [82438-55-9]; R = Ac, R1 = H [82447-33-4]; R = H, R1 = p-tert-Bu [82438-56-0]; R = H, R1 = o-Cl [82438-57-1]) are used light stabilizers for polyolefins. Thus, test pieces prepared from Noblen FS 200 [9003-07-0] containing Ca stearate 0.1%, 2,6-di-tert-butyl-4-methylphenol 0.05%, and I (R = H, R1 = H) 0.2% were irradiated for 360 h with a sunshine weatherometer before cracks formed on 1/3 of the surface, compared with 240 h for similar test pieces prepared from polymer not containing I.

IT 82438-55-9 82438-56-0 82438-57-1
(light stabilizers, for polypropylene)

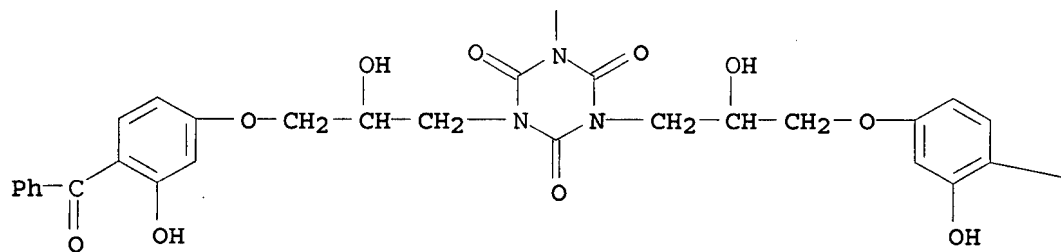
RN 82438-55-9 HCAPLUS

CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3,5-tris[3-(4-benzoyl-3-hydroxyphenoxy)-2-hydroxypropyl]- (9CI) (CA INDEX NAME)

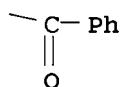
PAGE 1-A



PAGE 2-A

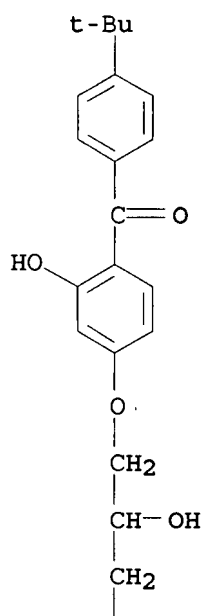


PAGE 2-B

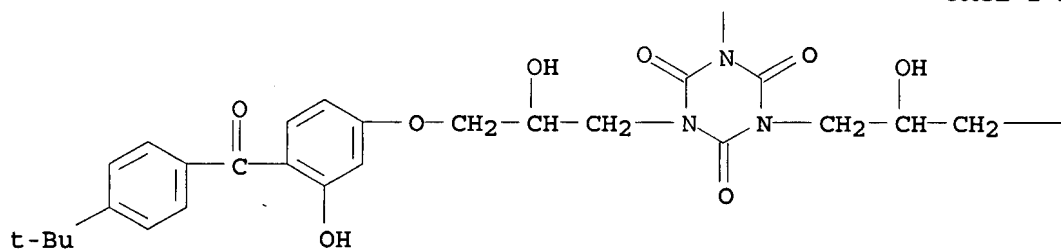


RN 82438-56-0 HCAPLUS
 CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3,5-tris[3-[4-[4-(1,1-dimethylethyl)benzoyl]-3-hydroxyphenoxy]-2-hydroxypropyl]- (9CI) (CA INDEX NAME)

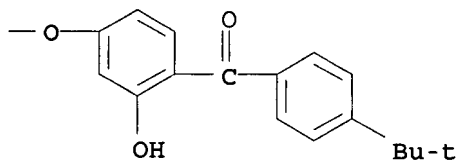
PAGE 1-A



PAGE 2-A



PAGE 2-B

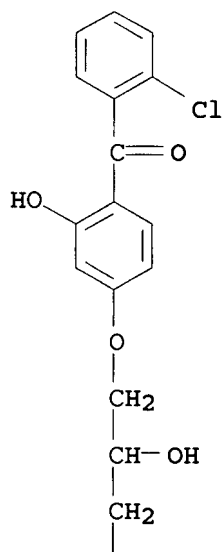


RN 82438-57-1 HCAPLUS

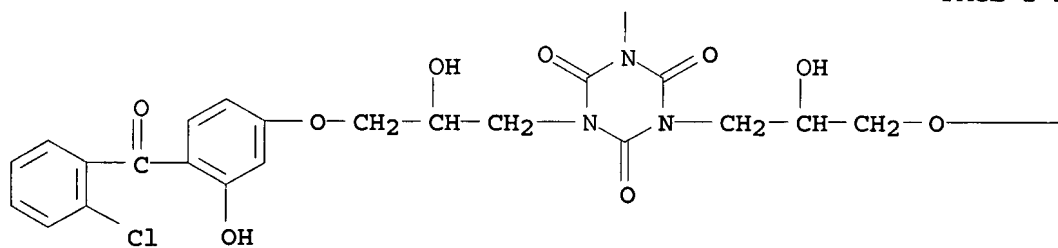
CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3,5-tris[3-[4-(2-chlorobenzoyl)-3-hydroxyphenoxy]-2-hydroxypropyl] - (9CI) (CA INDEX

NAME)

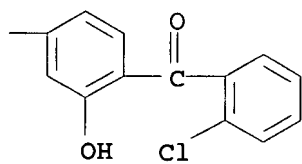
PAGE 1-A



PAGE 2-A



PAGE 2-B



IC C08K005-34
ICA C07D251-34

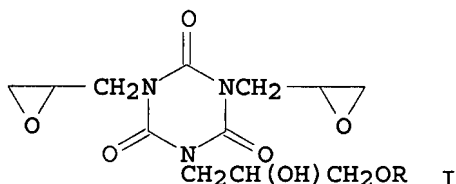
CC 37-6 (Plastics Manufacture and Processing)
 IT 82438-55-9 82438-56-0 82438-57-1
 82447-33-4
 (light stabilizers, for polypropylene)

L44 ANSWER 12 OF 12 HCAPLUS COPYRIGHT 2007 ACS on STN

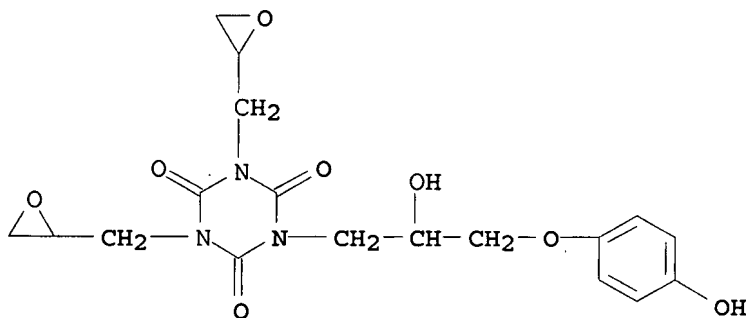
ACCESSION NUMBER: 1981:122719 HCAPLUS
 DOCUMENT NUMBER: 94:122719
 TITLE: Isocyanuric acid derivatives as constructional
 glue adhesives
 INVENTOR(S): Eritsyanyan, M. L.; Arutyunyan, B. S.; Esayan, K. A.
 PATENT ASSIGNEE(S): USSR
 SOURCE: U.S.S.R. From: Otkrytiya, Izobret., Prom.
 Obraztsy, Tovarnye Znaki 1980, (27), 101.
 CODEN: URXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Russian
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
SU 749837	A1	19800723	SU 1977-2507534	19770715
PRIORITY APPLN. INFO.:			SU 1977-2507534	A 19770715

ED Entered STN: 12 May 1984
 GI



AB Isocyanuric acids I (R = p-C₆H₄Me₂C₆H₄OH-p, p-C₆H₄OH) have the title
 properties.
 IT 76964-55-1
 (adhesives)
 RN 76964-55-1 HCAPLUS
 CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1-[2-hydroxy-3-(4-
 hydroxyphenoxy)propyl]-3,5-bis(oxiranylmethyl)- (9CI) (CA INDEX NAME)



IC C07D251-34; C08K005-34
CC 37-3 (Plastics Fabrication and Uses)
IT 76964-55-1 76964-56-2
(adhesives)

=> d his nofile

(FILE 'HOME' ENTERED AT 07:27:37 ON 15 AUG 2007)

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681440-25-5/BI OR 9002-88-4/BI)
L4 198713 SEA ABB=ON PLU=ON 46.492/RID
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L7 STR L5
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FILE 'HCAPLUS' ENTERED AT 08:05:05 ON 15 AUG 2007
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L38 214 SEA ABB=ON PLU=ON L35
L39 2081 SEA ABB=ON PLU=ON L21

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L43	22	SEA	ABB=ON	PLU=ON	(L41 OR L42)
L44	12	SEA	ABB=ON	PLU=ON	L18

#3

SCIENTIFIC REFERENCE BR
Sci & Tech Inf. Ctr

AUG 09 11:00

Access DB# 238749

SEARCH REQUEST FORM

Pat. & T.M. Office Scientific and Technical Information Center

Requester's Full Name: Sin J. Lee Examiner #: 76060 Date: 8-7-07
Art Unit: 1752 Phone Number 302-1333 Serial Number: 101530.349
Mail Box and Bldg/Room Location: 9C15 Results Format Preferred (circle): PAPER DISK E-MAIL
(Rem.)

If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Plz. See Bib.

Inventors (please provide full names): _____

Earliest Priority Filing Date: _____

For Sequence Searches Only Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

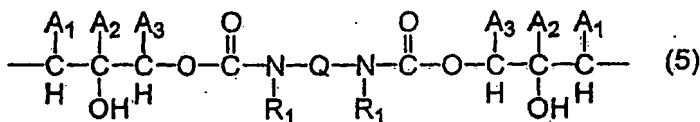
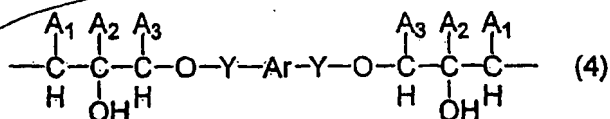
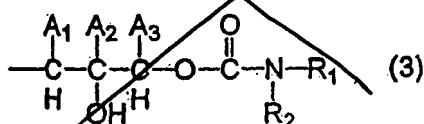
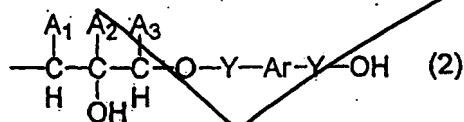
Please search for a triazine trione
oligomer compound or triazine trione polymer compound
having a structure in which at least
two triazine trione rings are linked through
a linking gp. of formula (4) or (5)
on the nitrogen atoms
(see cl. #1)



Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

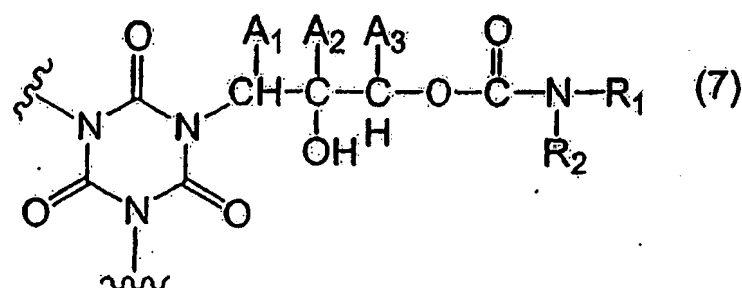
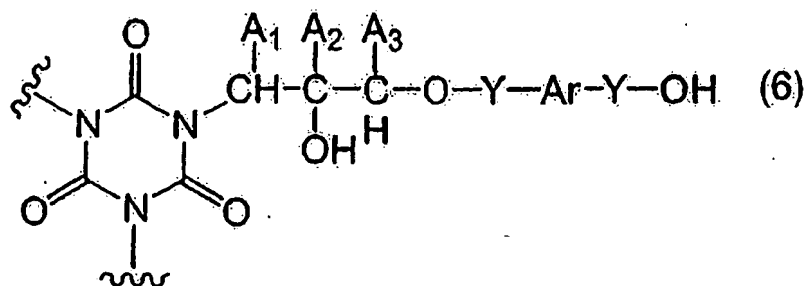
1. (Currently Amended) A composition for forming anti-reflective coating characterized in that the composition comprises a triazine trione compound having hydroxyalkyl structure as substituent on nitrogen atom, a triazine trione oligomer compound having hydroxyalkyl structure as substituent on nitrogen atom, or a triazine trione polymer compound having hydroxyalkyl structure as substituent on nitrogen atom; wherein the triazine trione compound having hydroxyalkyl structure as substituent on nitrogen atom, the triazine trione oligomer compound having hydroxyalkyl structure as substituent on nitrogen atom, or the triazine trione polymer compound having hydroxyalkyl structure as substituent on nitrogen atom is a triazine trione compound having a substituent of formula (2) or (3) as substituent on nitrogen atom, or a triazine trione oligomer compound or triazine trione polymer compound having a structure in which at least two triazine trione rings are linked through a linking group of formula (4) or (5) on the nitrogen atoms:



wherein A_1 , A_2 and A_3 are independently of one another hydrogen atom, methyl or ethyl, each Y is independently a direct bond or $-C(=O)-$, Ar is benzene ring or naphthalene ring which may be substituted with C_{1-6} alkyl, phenyl, naphthyl, halogen atom, C_{1-6} alkoxy, carbonyl, nitro, carboxy, cyano, C_{1-6} alkoxy, hydroxy, thiol, C_{1-6} alkylthio or amino, Q is C_{1-6} alkyl, C_{5-8} cycloalkyl, Ar or $-CH_2-Ar-CH_2-$, R_1 is C_{1-6} alkyl, phenyl or benzyl, R_2 is hydrogen atom, C_{1-6} alkyl, phenyl or benzyl.

2-3. (Canceled)

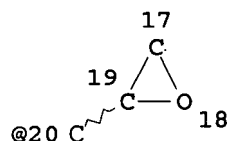
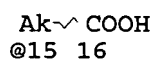
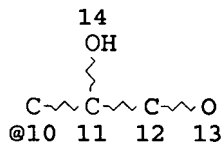
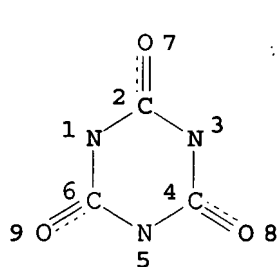
4. (Currently Amended) The composition for forming anti-reflective coating according to ~~claim 3~~, claim 1, wherein the triazine trione compound having a substituent of formula (2) or (3) has a structure of formula (6) or (7):



5. (Currently Amended) The composition for forming anti-reflective coating according to ~~claim 3~~, claim 1, wherein the triazine trione oligomer compound or triazine trione polymer

=> d que 17

L1 (198713)SEA FILE=REGISTRY ABB=ON PLU=ON 46.492/RID
 L2 STR



G1 21

VAR G1=10/15/20

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

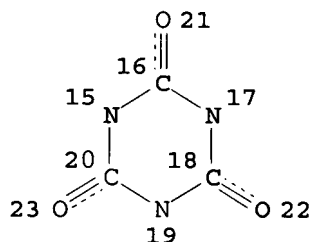
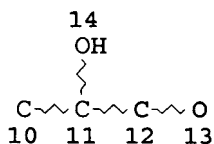
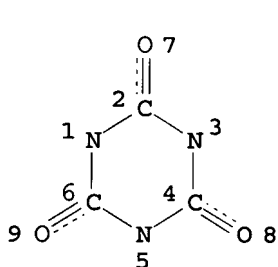
RSPEC I

NUMBER OF NODES IS 21

STEREO ATTRIBUTES: NONE

L3 1699 SEA FILE=REGISTRY SUB=L1 SSS FUL L2

L4 STR



NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RSPEC I

NUMBER OF NODES IS 23

STEREO ATTRIBUTES: NONE

L6 19 SEA FILE=REGISTRY SUB=L3 SSS FUL L4

L7 6 SEA FILE=HCAPLUS ABB=ON PLU=ON L6

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L7 ANSWER 1 OF 6 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:333974 HCAPLUS

DOCUMENT NUMBER: 140:365660

TITLE: Composition for forming antireflection film for lithography
 INVENTOR(S): Kishioka, Takahiro; Mizusawa, Ken-ichi; Enomoto, Tomoyuki; Sakamoto, Rikimaru; Nakayama, Keisuke; Kawamura, Yasuo
 PATENT ASSIGNEE(S): Nissan Chemical Industries, Ltd., Japan
 SOURCE: PCT Int. Appl., 85 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004034148	A1	20040422	WO 2003-JP12875	20031008
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
AU 2003271123	A1	20040504	AU 2003-271123	20031008
EP 1560070	A1	20050803	EP 2003-751376	20031008
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK			
CN 1723418	A	20060118	CN 2003-80105388	20031008
PRIORITY APPLN. INFO.:			JP 2002-295777	A 20021009
			JP 2003-126886	A 20030502
			WO 2003-JP12875	W 20031008

ED Entered STN: 23 Apr 2004

AB A composition for forming an antireflection film comprises a compound, an oligomer or a polymer comprising a triazine-trione moiety having a hydroxyalkyl structure as a substitute on a nitrogen atom. The composition can provide an antireflection film which exhibits good absorptivity for a light having a wavelength suitable for use in the production of a semiconductor device, has high antireflection effect, and exhibits a dry etching rate greater than that of a photoresist layer.

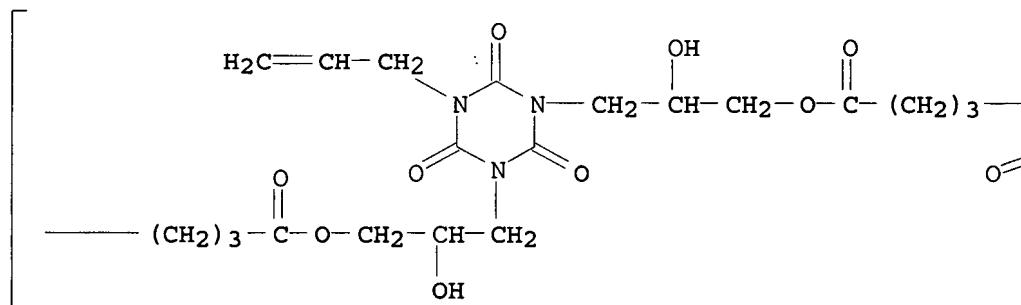
IT 681440-20-0P

(oligomeric; photolithog antireflective film compns. containing)

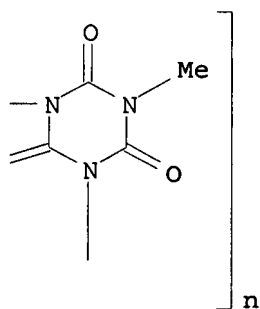
RN 681440-20-0 HCAPLUS

CN Poly[(dihydro-5-methyl-2,4,6-trioxo-1,3,5-triazine-1,3(2H,4H)-diyl)(4-oxo-1,4-butanediyl)oxy(2-hydroxy-1,3-propanediyl)[dihydro-2,4,6-trioxo-5-(2-propenyl)-1,3,5-triazine-1,3(2H,4H)-diyl](2-hydroxy-1,3-propanediyl)oxy(1-oxo-1,4-butanediyl)] (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



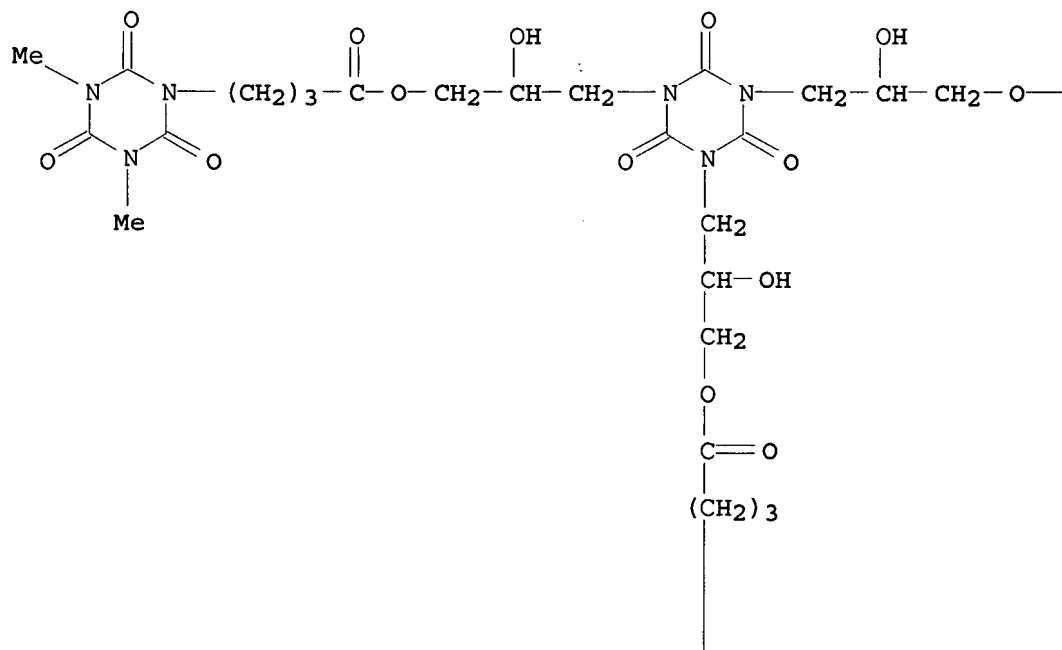
IT 681440-21-1P 681440-22-2P

(photolithog antireflective film compns. containing)

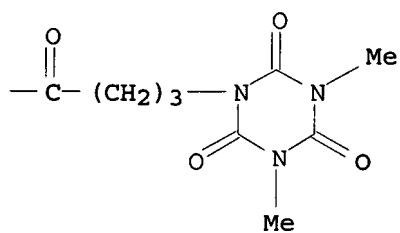
RN 681440-21-1 HCAPLUS

CN 1,3,5-Triazine-1(2H)-butanoic acid, tetrahydro-3,5-dimethyl-2,4,6-trioxo-, (2,4,6-trioxo-1,3,5-triazine-1,3,5(2H,4H,6H)-triy) tris(2-hydroxy-3,1-propanediyl) ester (9CI) (CA INDEX NAME)

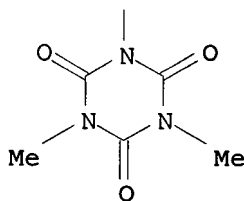
PAGE 1-A



PAGE 1-B

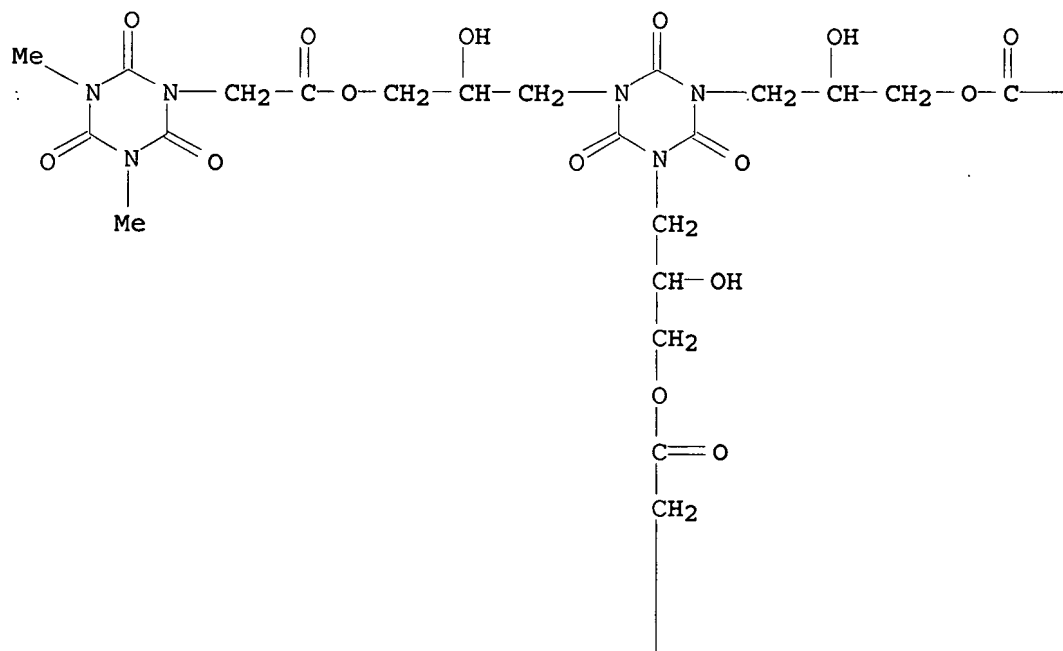


PAGE 2-A

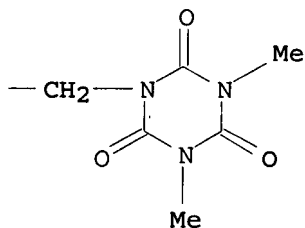


RN 681440-22-2 HCAPLUS
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 , (2,4,6-trioxo-1,3,5-triazine-1,3,5(2H,4H,6H)-triyl)tris(2-hydroxy-
 3,1-propanediyl) ester (9CI) (CA INDEX NAME)

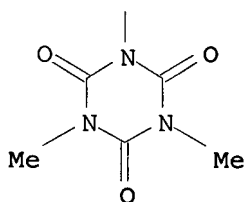
PAGE 1-A



PAGE 1-B



PAGE 2-A



IC ICM G03F007-11
ICS H01L021-027
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)
Section cross-reference(s): 76
IT 681440-09-5P 681440-10-8P 681440-11-9P 681440-12-0P
681440-13-1P 681440-14-2P 681440-15-3P 681440-16-4P

681440-17-5P 681440-19-7P 681440-20-0P
(oligomeric; photolithog antireflective film compns. containing)
IT 681440-21-1P 681440-22-2P 681440-23-3P
(photolithog antireflective film compns. containing)
REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR
THIS RECORD. ALL CITATIONS AVAILABLE IN THE
RE FORMAT

L7 ANSWER 2 OF 6 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:305563 HCAPLUS
DOCUMENT NUMBER: 140:329574
TITLE: Heat- or photo-curable composition for
negative-working lithographic plate
INVENTOR(S): Fujimaki, Kazuhiro
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 94 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2004117555	A	20040415	JP 2002-277719	20020924
PRIORITY APPLN. INFO.:			JP 2002-277719	20020924

ED Entered STN: 15 Apr 2004
AB The composition contains (A) a polymerizable compound having ≥ 1
ethylenic unsatd. group and ≥ 2 cyclic structures from ≥ 1
amide structure and (B) a compound generating radical by heat or light.
The composition shows good storage stability, high sensitivity,
developability, and gives neg. lithog. printing plate with good
printing durability especially on burning treatment.

IT 679408-24-3P 679408-26-5P
(heat- or photo-curable composition for neg.-working lithog. plate)

RN 679408-24-3 HCAPLUS

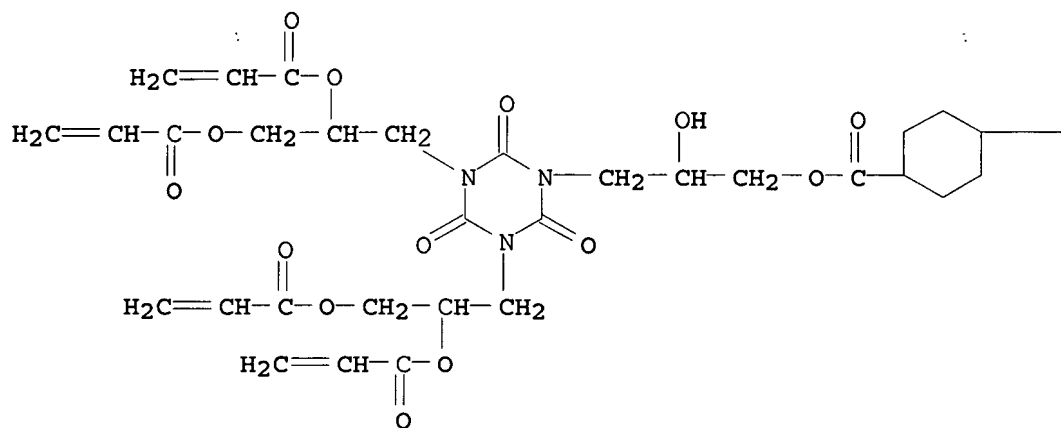
CN 1,4-Cyclohexanedicarboxylic acid, bis[3-[3,5-bis[2,3-bis[(1-oxo-2-
propenyl)oxylpropyl]tetrahydro-2,4,6-trioxo-1,3,5-triazin-1(2H)-yl]-2-
hydroxypropyl] ester, polymer with 1,2-ethanediyl bis(2-methyl-2-
propenoate), methyl 2-methyl-2-propenoate, 2-methyl-2-propenamide and
2-methyl-2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

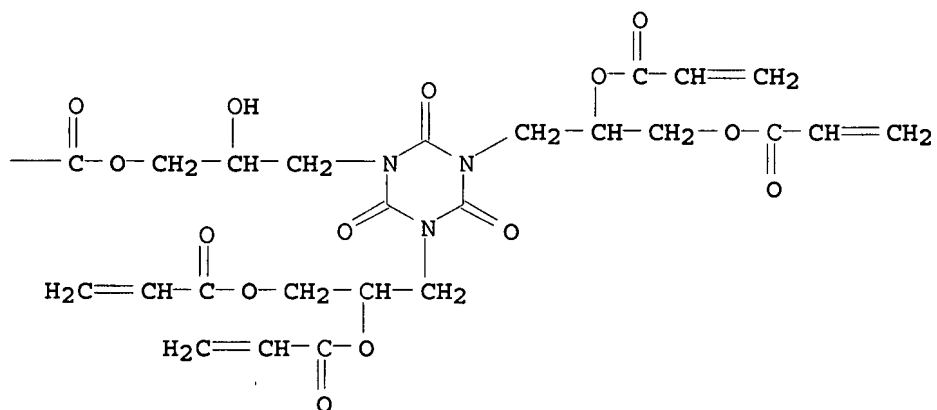
CRN 679408-11-8

CMF C56 H66 N6 O28

PAGE 1-A



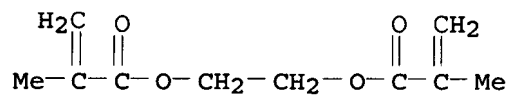
PAGE 1-B



CM 2

CRN 97-90-5

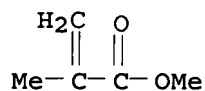
CMF C10 H14 O4



CM 3

CRN 80-62-6

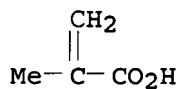
CMF C5 H8 O2



CM 4

CRN 79-41-4

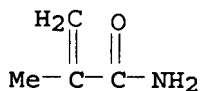
CMF C4 H6 O2



CM 5

CRN 79-39-0

CMF C4 H7 N O



RN 679408-26-5 HCAPLUS

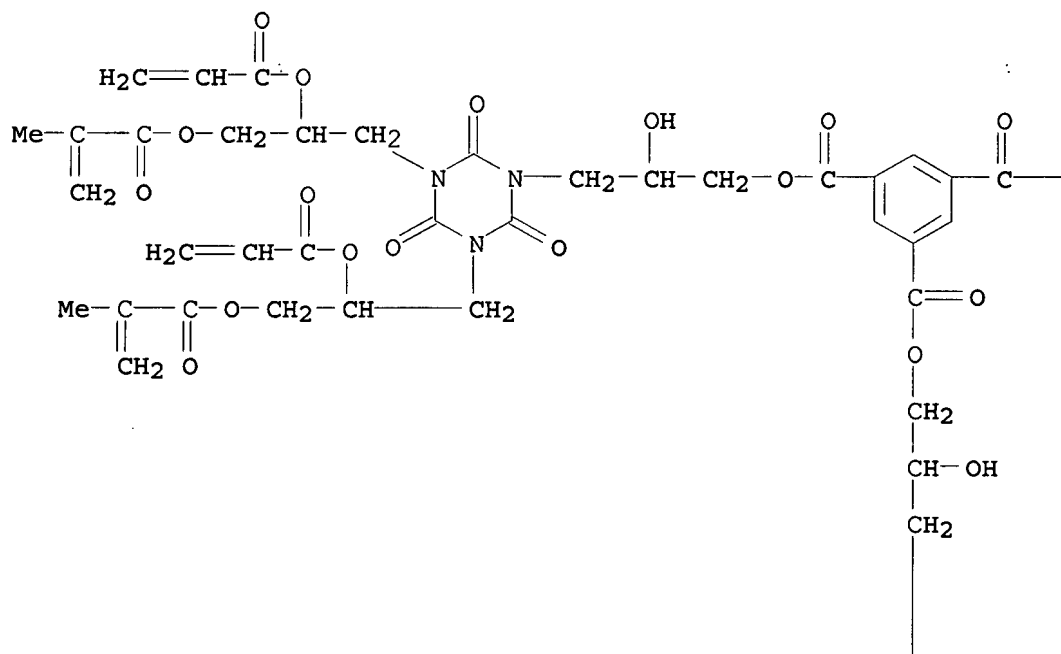
CN 1,3,5-Benzenetricarboxylic acid, tris[2-hydroxy-3-[tetrahydro-3,5-bis[3-[(2-methyl-1-oxo-2-propenyl)oxy]-2-[(1-oxo-2-propenyl)oxy]propyl]-2,4,6-trioxo-1,3,5-triazin-1(2H)-yl]propyl] ester, polymer with 1,2-ethanediyl bis(2-methyl-2-propenoate), methyl 2-methyl-2-propenoate, 2-methyl-2-propenamide and 2-methyl-2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

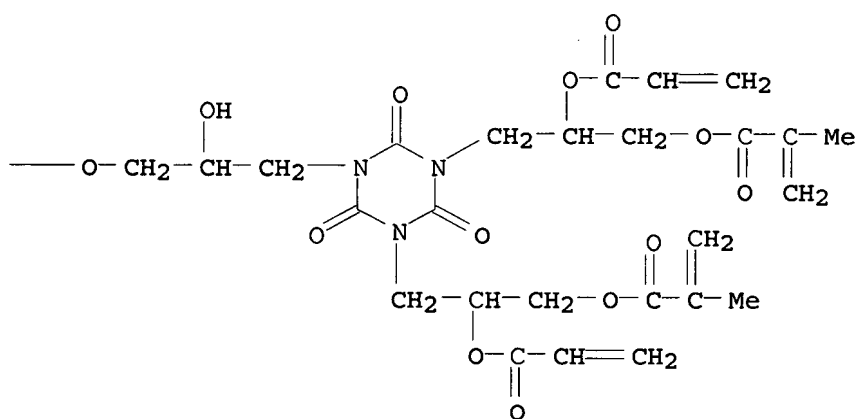
CRN 679408-12-9

CMF C87 H99 N9 O42

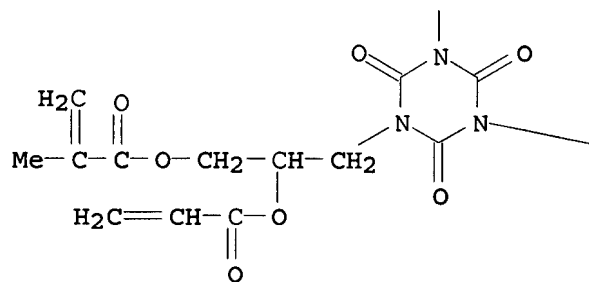
PAGE 1-A



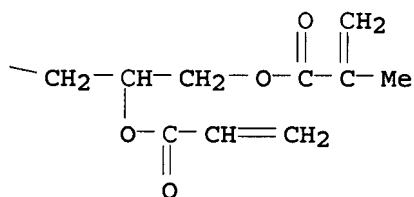
PAGE 1-B



PAGE 2-A



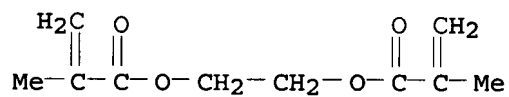
PAGE 2-B



CM 2

CRN 97-90-5

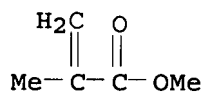
CMF C10 H14 O4



CM 3

CRN 80-62-6

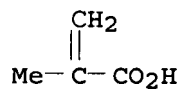
CMF C5 H8 O2



CM 4

CRN 79-41-4

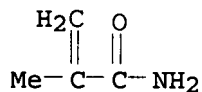
CMF C4 H6 O2



CM 5

CRN 79-39-0

CMF C4 H7 N O



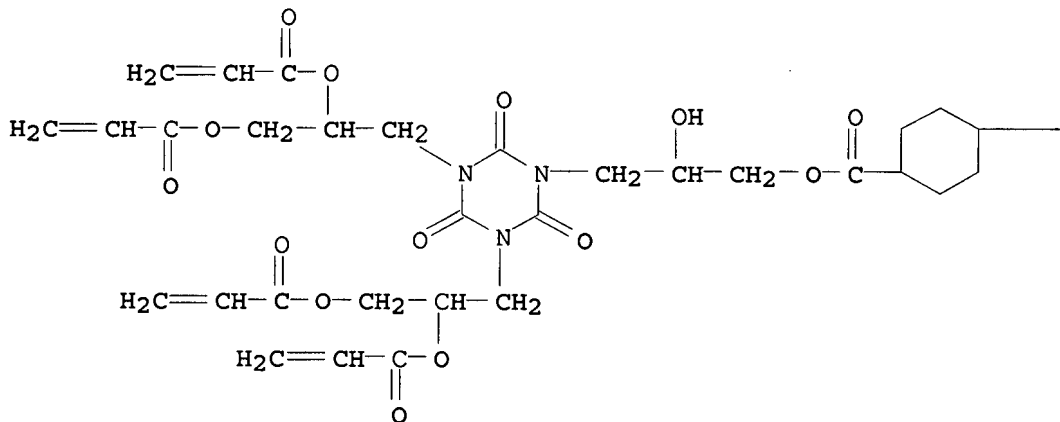
IT 679408-11-8 679408-12-9

(heat- or photo-curable composition for neg.-working lithog. plate)

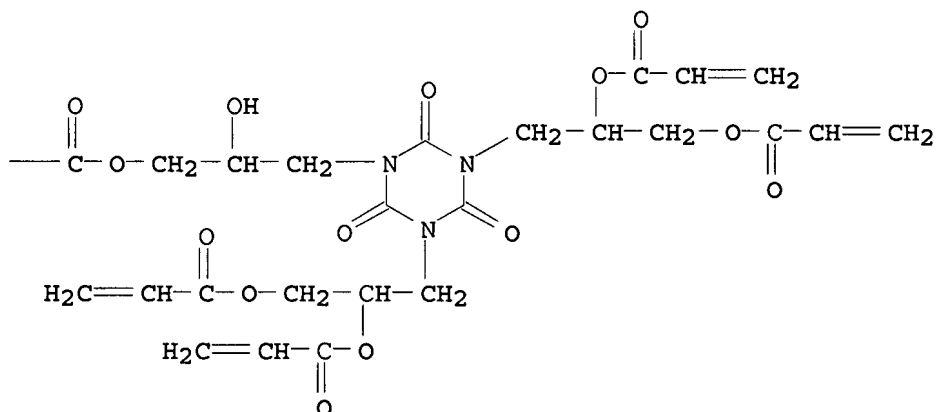
RN 679408-11-8 HCAPLUS

CN 1,4-Cyclohexanedicarboxylic acid, bis[3-[3,5-bis[2,3-bis[(1-oxo-2-propenyl)oxylpropyl]tetrahydro-2,4,6-trioxo-1,3,5-triazin-1(2H)-yl]-2-hydroxypropyl] ester (9CI) (CA INDEX NAME)

PAGE 1-A



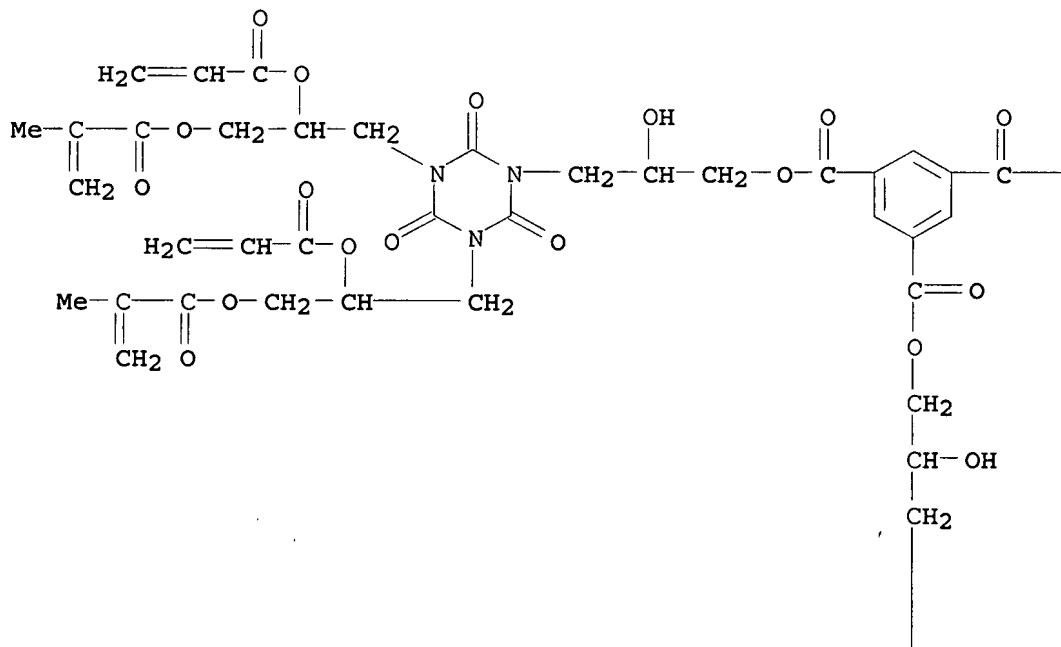
PAGE 1-B



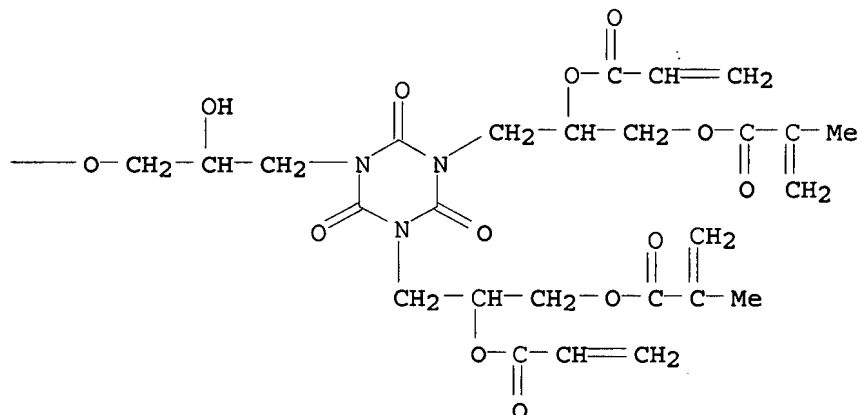
RN 679408-12-9 HCAPLUS

CN 1,3,5-Benzenetricarboxylic acid, tris[2-hydroxy-3-[(tetrahydro-3,5-bis[3-[(2-methyl-1-oxo-2-propenyl)oxy]-2-[(1-oxo-2-propenyl)oxy]propyl]-2,4,6-trioxo-1,3,5-triazin-1(2H)-yl]propyl] ester (9CI) (CA INDEX NAME)

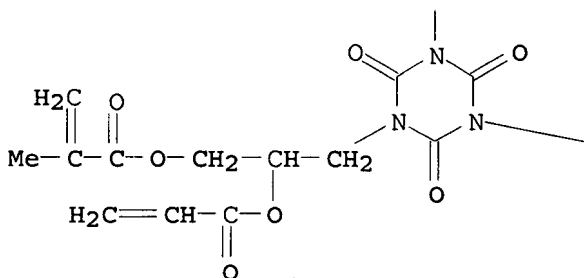
PAGE 1-A



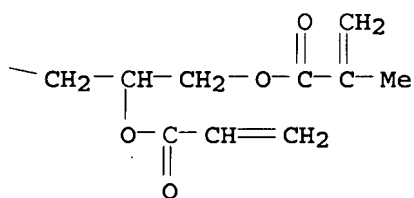
PAGE 1-B



PAGE 2-A



PAGE 2-B



IC ICM G03F007-027
 ICS C08F020-36; G02B005-20; G03F007-00; G03F007-004
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
 Reprographic Processes)
 Section cross-reference(s): 38
 IT 679407-95-5P 679408-01-6P 679408-08-3P 679408-15-2P
 679408-16-3P 679408-17-4P 679408-18-5P 679408-19-6P
 679408-20-9P 679408-21-0P 679408-22-1P 679408-23-2P
 679408-24-3P 679408-25-4P 679408-26-5P
 679408-27-6P 679408-28-7P 679408-29-8P 679408-30-1P

679408-31-2P 679408-32-3P 679408-33-4P 679408-34-5P
679408-35-6P

(heat- or photo-curable composition for neg.-working lithog. plate)

IT 679407-93-3 679407-94-4 679407-96-6 679407-97-7 679407-98-8
679407-99-9 679408-00-5 679408-02-7 679408-03-8 679408-04-9
679408-05-0 679408-06-1 679408-07-2 679408-09-4 679408-10-7
679408-11-8 679408-12-9 679408-13-0 679408-14-1
(heat- or photo-curable composition for neg.-working lithog. plate)

L7 ANSWER 3 OF 6 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1987:477891 HCAPLUS

DOCUMENT NUMBER: 107:77891

TITLE: New organosilicon bis-derivatives of isocyanuric acid

AUTHOR(S): Eritsyanyan, M. L.; Karamyan, R. A.; Khananashvili, L. M.

CORPORATE SOURCE: Tbilis. Gos. Univ., Tbilisi, USSR

SOURCE: Soobshcheniya Akademii Nauk Gruzinskoi SSR (1986), 123(3), 549-52

CODEN: SAKNAH; ISSN: 0002-3167

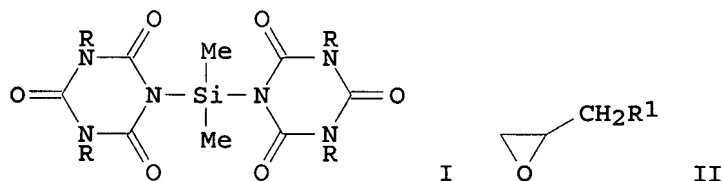
DOCUMENT TYPE: Journal

LANGUAGE: Russian

OTHER SOURCE(S): CASREACT 107:77891

ED Entered STN: 05 Sep 1987

GI



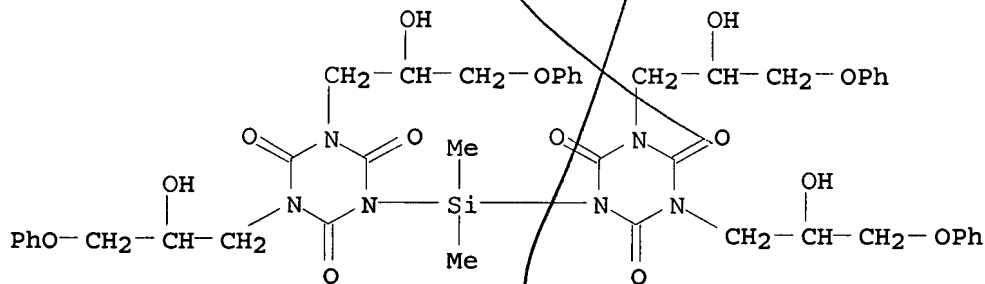
AB Silylbis(isocyanurate) I (R = H) was prepared in 85% yield by treating monosodium isocyanurate with Me₂SiCl₂. Treating I (R = H) with HCHO and oxiranes II (R₁ = Cl, PhO) gave 65-96% I [R = CH₂OH, CH₂CH(OH)CH₂R₁], which, on treatment with maleic anhydride gave 93-97% I [R = CH₂O₂CCH:CHCO₂H; CH₂CH(CH₂R₁)O₂CCH:CHCO₂H].

IT 109636-40-0P

(preparation and reaction of, with maleic anhydride)

RN 109636-40-0 HCAPLUS

CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,1'-(dimethylsilylene)bis[3,5-bis(2-hydroxy-3-phenoxypropyl)- (9CI), (CA INDEX NAME)

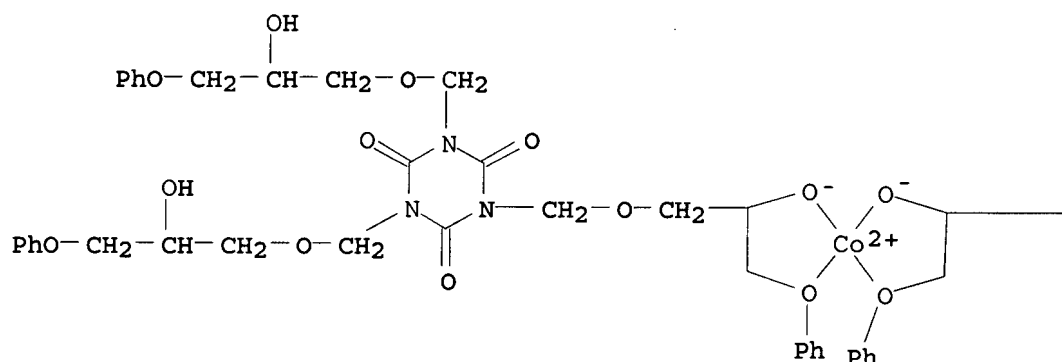


USHA SHRESTHA EIC 1700 REM 4B31

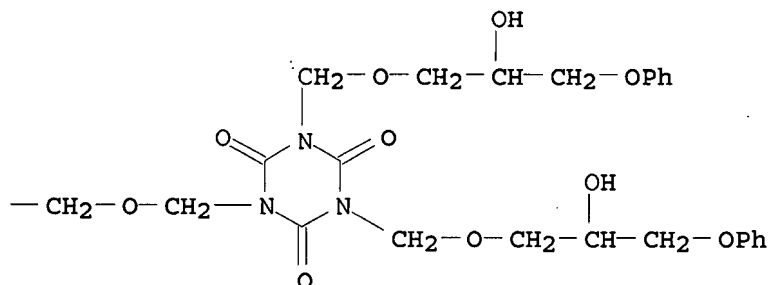
CC 29-6 (Organometallic and Organometalloidal Compounds)
 IT 109636-38-6P 109636-39-7P **109636-40-0P**
 (preparation and reaction of, with maleic anhydride)

L7 ANSWER 4 OF 6 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1984:184725 HCAPLUS
 DOCUMENT NUMBER: 100:184725
 TITLE: Organometallic complexes based on tris-substituted
 derivatives of isocyanuric acid
 AUTHOR(S): Eritsyen, M. L.; Karamyan, R. A.; Eritsyen, N. P.;
 Karapetyan, K. A.
 CORPORATE SOURCE: Gos. Nauchno-Issled. Proektn. Inst. Polim. Kleev,
 Kirovakan, USSR
 SOURCE: Koordinatsionnaya Khimiya (1984), 10(2), 195-200
 CODEN: KOKHDC; ISSN: 0132-344X
 DOCUMENT TYPE: Journal
 LANGUAGE: Russian
 ED Entered STN: 26 May 1984
 AB [CoL2Q2]n [HL = tris-1,3,5-(2'-hydroxy-3'-chloropropyl)isocyanuric
 acid (I), Q = NH3; HL = tris-1,3,5-(2'-hydroxy-3'-
 phenoxypropyl)isocyanuric acid (II), tris-1,3,5-[(2'-hydroxy-3'-
 phenoxypropoxy)methyl]isocyanuric acid (III), Q = NH3, Et2NH,
 HN(C2H4OH)2] and [CuL2Q2]n [HL = I, Q = NH3; HL = tris-1,3,5-
 (hydroxymethyl)isocyanuric acid, II, III, Q = NH3, Et2NH, HN(C2H4OH)2]
 were prepared and characterized by IR spectra. [CoL2]n and [CuL2]n were
 also prepared
 IT **89527-97-9P 89527-99-1P**
 (preparation and reactions with amines or alc. amines)
 RN 89527-97-9 HCAPLUS
 CN Cobalt, bis[1,3,5-tris[(2-hydroxy-3-phenoxypropoxy)methyl]-1,3,5-
 triazine-2,4,6(1H,3H,5H)-trionato]-, (T-4)- (9CI) (CA INDEX NAME)

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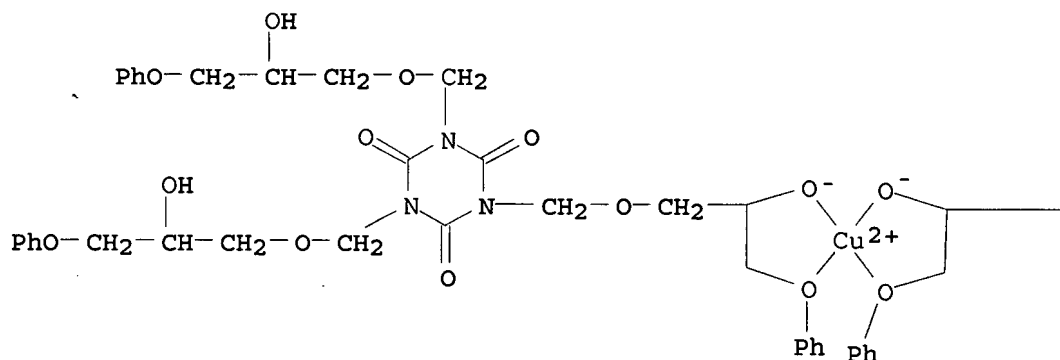
PAGE 1-B



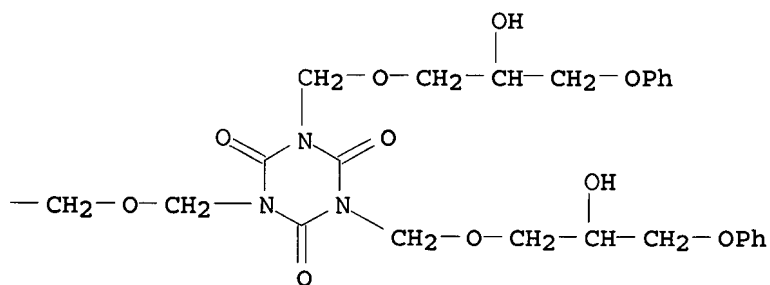
RN 89527-99-1 HCAPLUS

CN Copper, bis[1,3,5-tris[(2-hydroxy-3-phenoxypropoxy)methyl]-1,3,5-triazine-2,4,6(1H,3H,5H)-trionato] - (9CI) (CA INDEX NAME)

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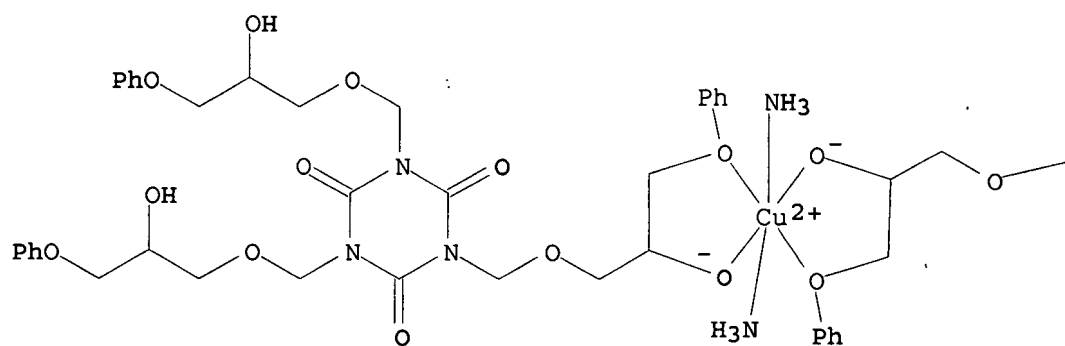
IT 89527-94-6P 89528-26-7P 89551-34-8P
89741-97-9P

(preparation of)

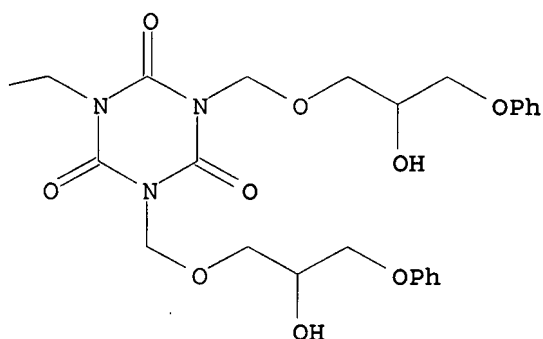
RN 89527-94-6 HCAPLUS

CN Copper, diamminebis[1,3,5-tris[(2-hydroxy-3-phenoxypropoxy)methyl]-1,3,5-triazine-2,4,6(1H,3H,5H)-trionato] - (9CI) (CA INDEX NAME)

PAGE 1-A



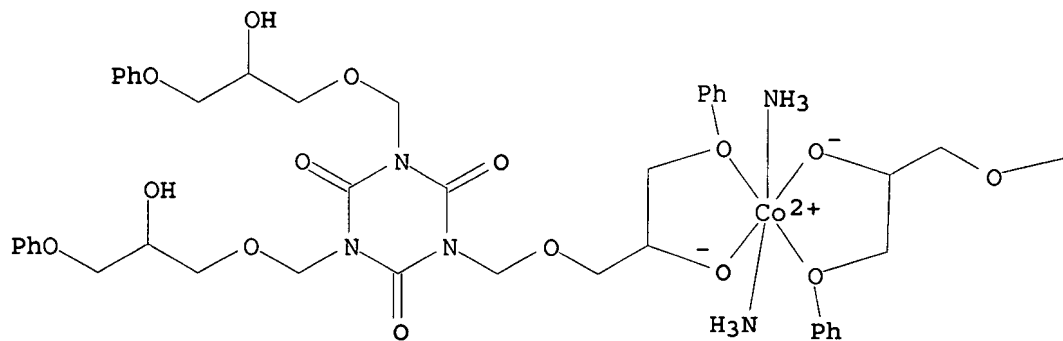
PAGE 1-B



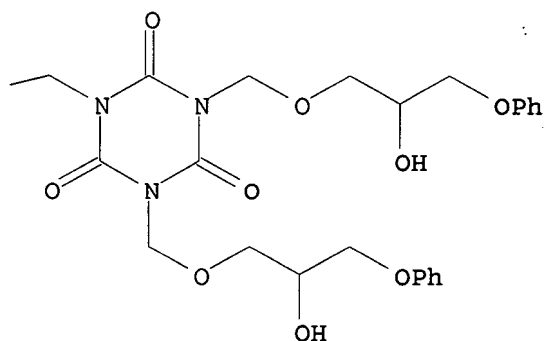
RN 89528-26-7 HCAPLUS

CN Cobalt, diamminebis[1,3,5-tris[(2-hydroxy-3-phenoxypropoxy)methyl]-1,3,5-triazine-2,4,6(1H,3H,5H)-trionato] - (9CI) (CA INDEX NAME)

PAGE 1-A



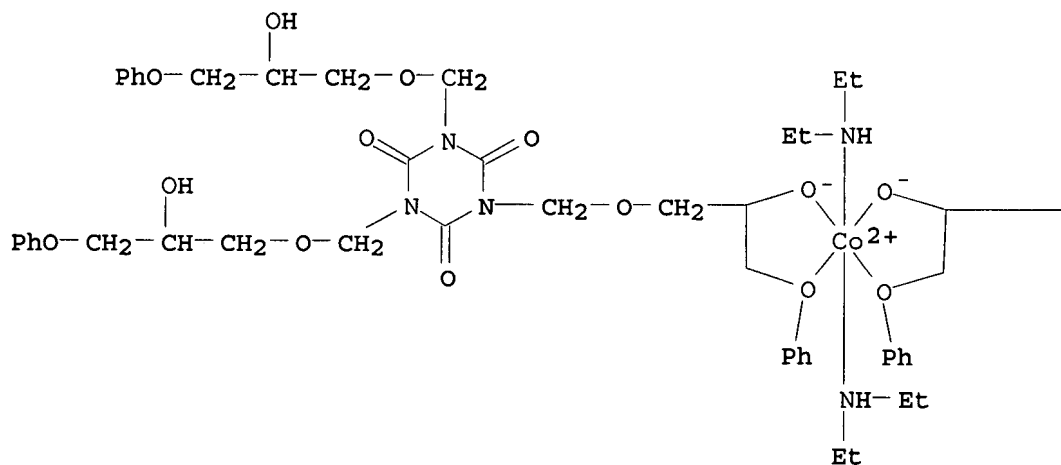
PAGE 1-B



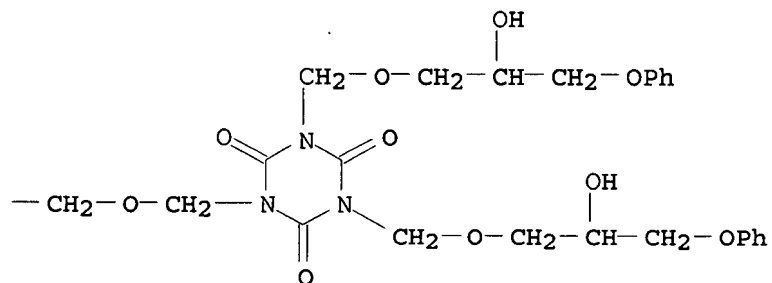
RN 89551-34-8 HCAPLUS

CN Cobalt, bis(N-ethylethanamine)bis[1,3,5-tris[(2-hydroxy-3-phenoxypropoxy)methyl]-1,3,5-triazine-2,4,6(1H,3H,5H)-trionato] - (9CI)
(CA INDEX NAME)

PAGE 1-A

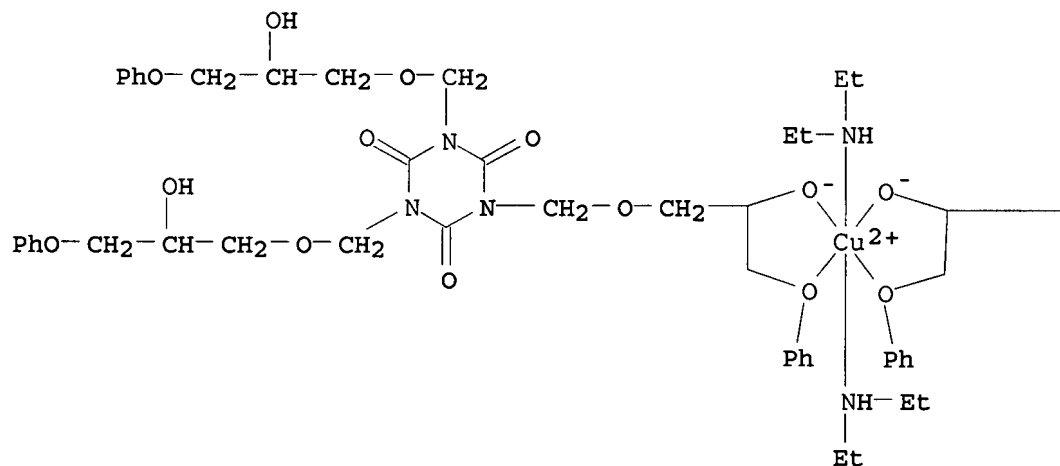


PAGE 1-B

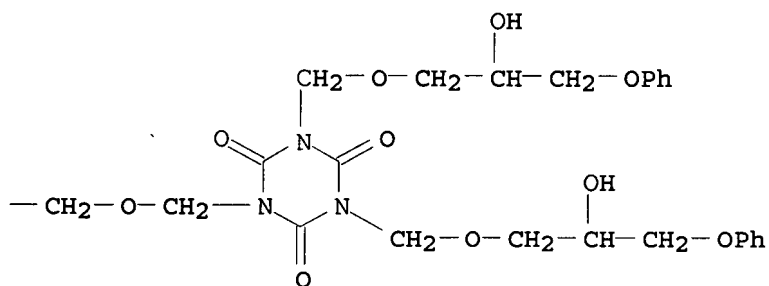


RN 89741-97-9 HCAPLUS
 CN Copper, bis(N-ethylethanamine)bis[1,3,5-tris[(2-hydroxy-3-phenoxypropoxy)methyl]-1,3,5-triazine-2,4,6(1H,3H,5H)-trionato] - (9CI)
 (CA INDEX NAME)

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PAGE 1-B



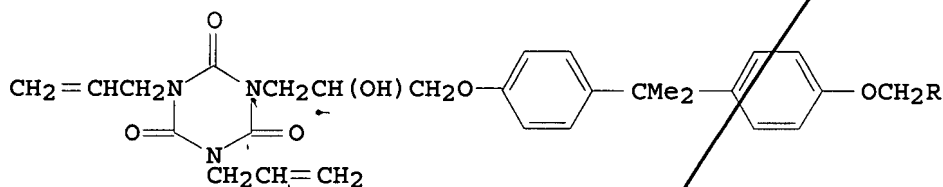
CC 78-7 (Inorganic Chemicals and Reactions)
 IT 89527-96-8P **89527-97-9P** 89527-98-0P **89527-99-1P**
 89551-31-5P 89551-32-6P 89729-12-4P
 (preparation and reactions with amines or alc. amines)
 IT 111-42-2DP, cobalt and copper complexes 7440-48-4DP, complexes with
 isocyanuric acid derivs. 7440-50-8DP, complexes with isocyanuric
 acid derivs. 10471-40-6DP, cobalt and copper complexes
 17989-80-9DP, cobalt and copper complexes 75513-67-6DP, cobalt and
 copper complexes 89527-93-5P **89527-94-6P** 89527-95-7P
 89528-24-5P 89528-25-6P **89528-26-7P** 89551-29-1P
 89551-30-4P 89551-33-7P **89551-34-8P** **89741-97-9P**
 89933-39-1P
 (preparation of)

L7 ANSWER 5 OF 6 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1977:603166 HCAPLUS

DOCUMENT NUMBER: 87:203166
 TITLE: Diallylisocyanuric acid derivatives as modifiers for latex coatings
 INVENTOR(S): Zalinyan, M. G.; Avetisyan, G. V.; Arutyunyan, B. S.; Eritsyan, M. L.; Movsisyan, G. V.
 PATENT ASSIGNEE(S): State Scientific-Research and Design Institute of Polymeric Adhesives, USSR
 SOURCE: U.S.S.R. From: Otkrytiya, Izobret., Prom. Obraztsy, Tovarnye Znaki 1977, 54(31), 64. CODEN: URXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Russian
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

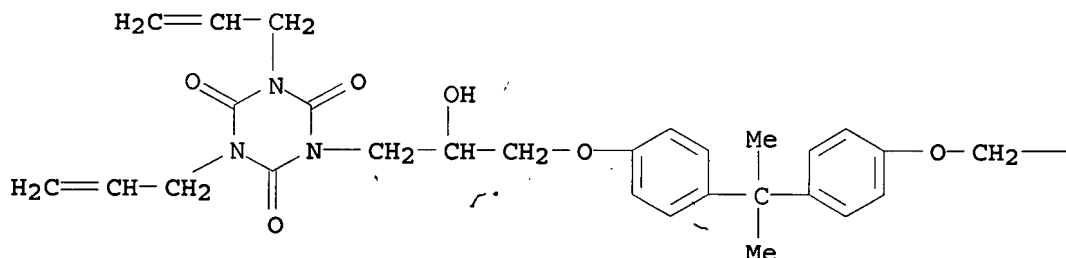
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
SU 569574	A1	19770825	SU 1975-2170870	19750910
PRIORITY APPLN. INFO.:			SU 1975-2170870	A 19750910

ED Entered STN: 12 May 1984
 GI

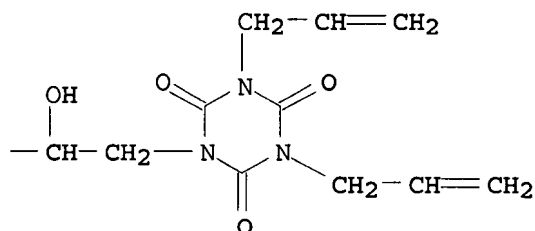


AB Isocyanurate derivs. [I, R = oxiranyl, 1-hydroxy-2-(2,4,6-trioxo-3,5-diallylhexahydro-1-triazinyl)ethyl] are modifiers for latex coatings.
 IT 64936-28-3
 (modifiers, for latex coatings)
 RN 64936-28-3 HCAPLUS
 CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,1'-[(1-methylethylidene)bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)]]bis[3,5-di-2-propenyl- (9CI) (CA INDEX NAME)

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IC C07D251-34
 CC 42-7 (Coatings, Inks, and Related Products)
 IT 64819-57-4 **64936-28-3**
 (modifiers, for latex coatings)

L7 ANSWER 6 OF 6 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1977:140859 HCAPLUS

DOCUMENT NUMBER: 86:140859

TITLE: Study of the hardening of oligoesters with unsaturated end groups containing an s-triazine ring

AUTHOR(S): Kutepov, D. F.; Borisova, L. N.; Skubin, V. K.; Basov, M. I.

CORPORATE SOURCE: Mosk. Khim.-Tekhnol. Inst. im. Mendeleeva, Moscow, USSR

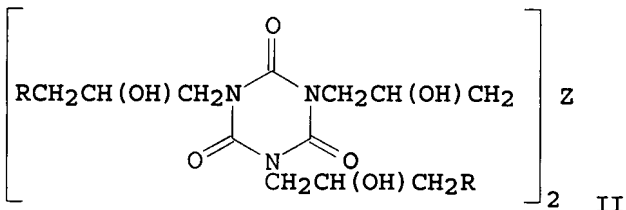
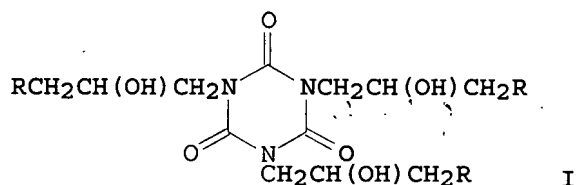
SOURCE: Deposited Doc. (1974), VINITI 2034-74, 15 pp.
 Avail.: BLLD

DOCUMENT TYPE: Report

LANGUAGE: Russian

ED Entered STN: 12 May 1984

GI



AB Homopolymn. of a triazine-containing acrylate (I, R = CH₂:CHCO₂) [38817-87-7] and methacrylate (I, R = CH₂:CMeCO₂) [54316-76-6], and of their ethylene glycol-modified analogs [II (R = CH₂:CHCO₂, Z = OCH₂CH₂O) [62202-54-4] and II (R = CH₂:CMeCO₂, Z = OCH₂CH₂O)]

[62228-34-6]] or diethylene glycol-modified analogs [II [R = CH₂:CHCO₂, Z = (OCH₂CH₂)₂O] [62202-55-5] and II [R = CH₂:CMeCO₂, Z = (OCH₂CH₂)₂O] [62202-56-6]] followed 1st order kinetics with variable rate consts. The observed decrease in the rate constant in the course of the polymerization was not accompanied by a change in the reaction order and indicated that at a given conversion stage the propagation step became diffusion controlled. This autoretardation occurred at lower conversions for the methacrylates than for the acrylates. The optimum conditions of the polymerization were determined (best catalyst methyl ethyl ketone peroxide [1338-23-4]). Comparison of thermal stability of the resulting polymers with that of TGM-3 and MGF-9 indicated beneficial effects from the presence of the triazine rings.

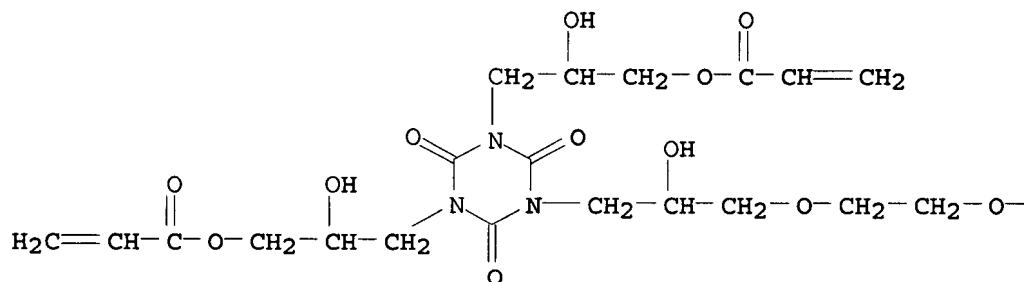
IT 62202-54-4 62202-55-5 62202-56-6
62228-34-6

(polymerization of, kinetics of)

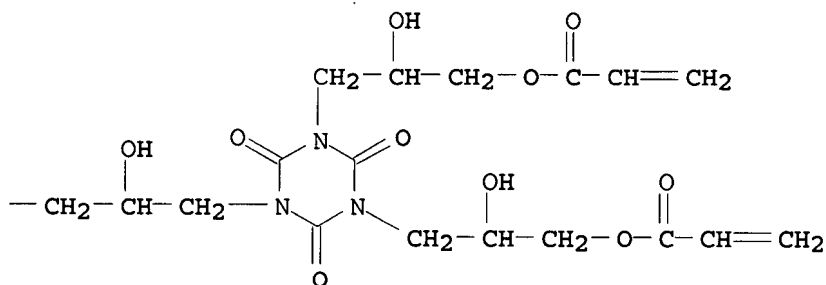
RN 62202-54-4 HCAPLUS

CN 2-Propenoic acid, 1,2-ethanediylbis[oxy(2-hydroxy-3,1-propanediyl)] [(2,4,6-trioxo-1,3,5-triazine-5,1,3(2H,4H,6H)-triy]bis(2-hydroxy-3,1-propanediyl)] ester (9CI) (CA INDEX NAME)

PAGE 1-A



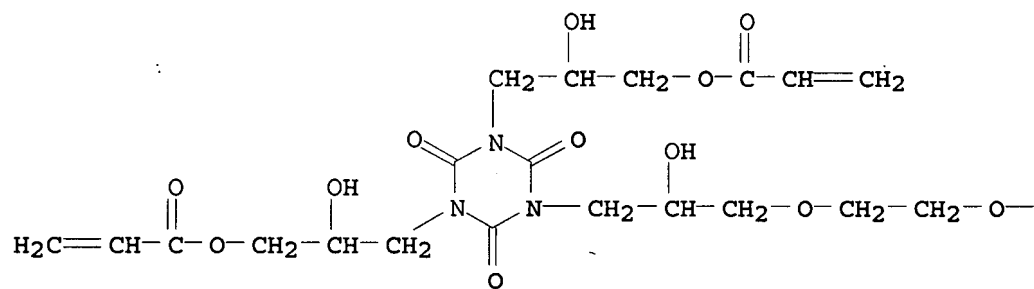
PAGE 1-B



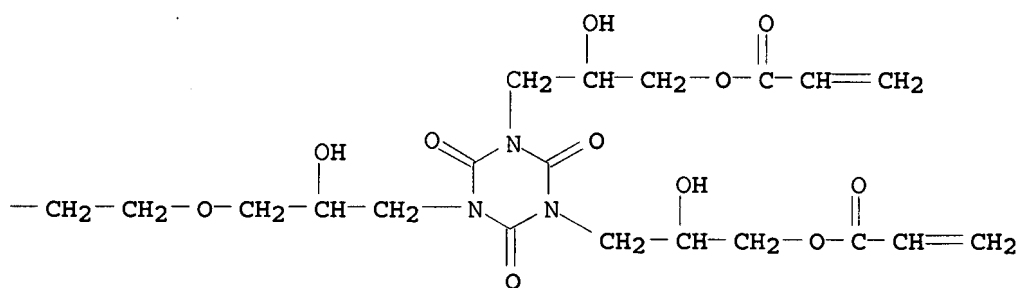
RN 62202-55-5 HCAPLUS

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PAGE 1-A



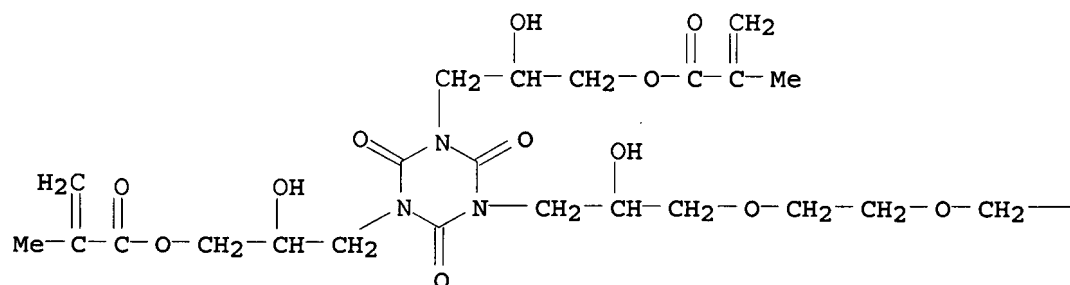
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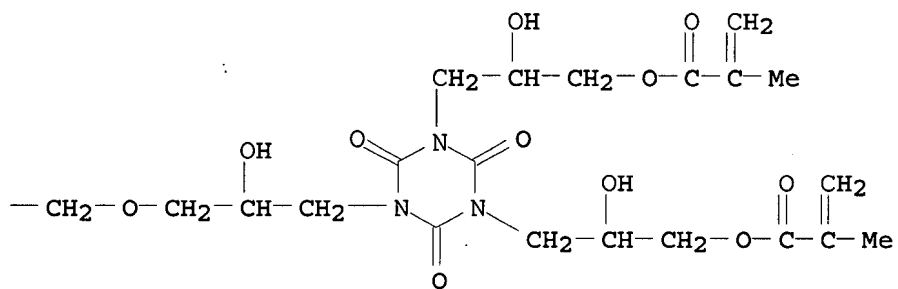
RN 62202-56-6 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, [oxybis[2,1-ethanediyl]oxy(2-hydroxy-3,1-propanediyl)(2,4,6-trioxo-1,3,5-triazine-5,1,3(2H,4H,6H)-triyl)bis(2-hydroxy-3,1-propanediyl)] ester (9CI) (CA INDEX NAME)

PAGE 1-A



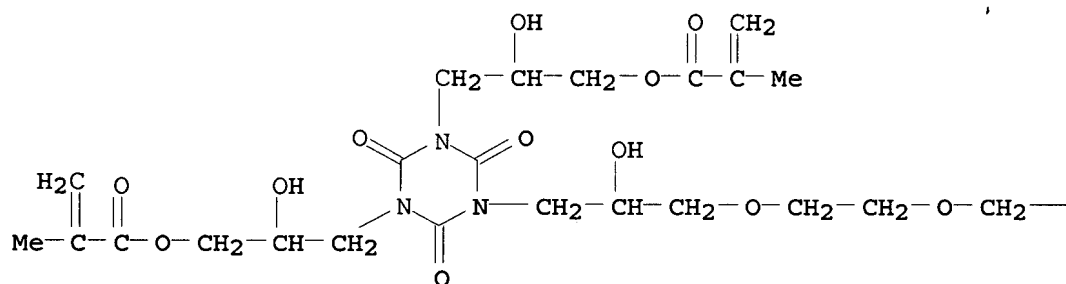
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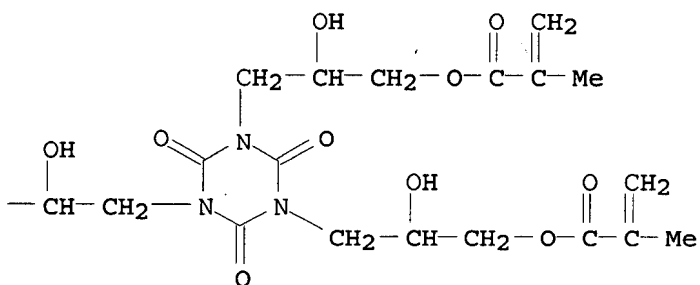
RN 62228-34-6 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 1,2-ethanedithylbis[oxy(2-hydroxy-3,1-propanediyl)(2,4,6-trioxo-1,3,5-triazine-5,1,3(2H,4H,6H)-triy)]bis(2-hydroxy-3,1-propanediyl)] ester (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



CC 36-6 (Plastics Manufacture and Processing)

IT 38817-87-7 54316-76-6 62202-54-4 62202-55-5

62202-56-6 62228-34-6

(polymerization of, kinetics of)

=> d his nofile

(FILE 'HOME' ENTERED AT 10:21:08 ON 15 AUG 2007)

FILE 'REGISTRY' ENTERED AT 10:45:43 ON 15 AUG 2007
ACT LEE349/A

L1 (198713)SEA ABB=ON PLU=ON 46.492/RID
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L3 1699 SEA SUB=L1 SSS FUL L2

L4 STR L2
L5 1 SEA SUB=L3 SSS SAM L4
L6 19 SEA SUB=L3 SSS FUL L4
SAV L6 LEE349E/A

FILE 'HCAPLUS' ENTERED AT 10:50:36 ON 15 AUG 2007
L7 6 SEA ABB=ON PLU=ON L6

#3

SCIENTIFIC REFERENCE BR
Sci & Tech Inf. Cntr.

AUG 09 RECU

SEARCH REQUEST FORM

Access DB# 233748

349

Scientific and Technical Information Center

Requester's Full Name: Pat. & T.M. Office Sin J. Lee Examiner #: 76060 Date: 8-7-07
Art Unit: 1752 Phone Number: 302-1333 Serial Number: 10/530,349
Mail Box and Bldg/Room Location: 9C15 Results Format Preferred (circle): PAPER DISK E-MAIL

(Rem.)
If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

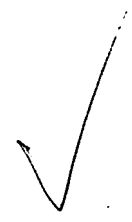
Title of Invention: P12. See Bib.

Inventors (please provide full names): _____

Earliest Priority Filing Date: _____

For Sequence Searches Only Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

Please search for the
reaction product of. Cl. #6





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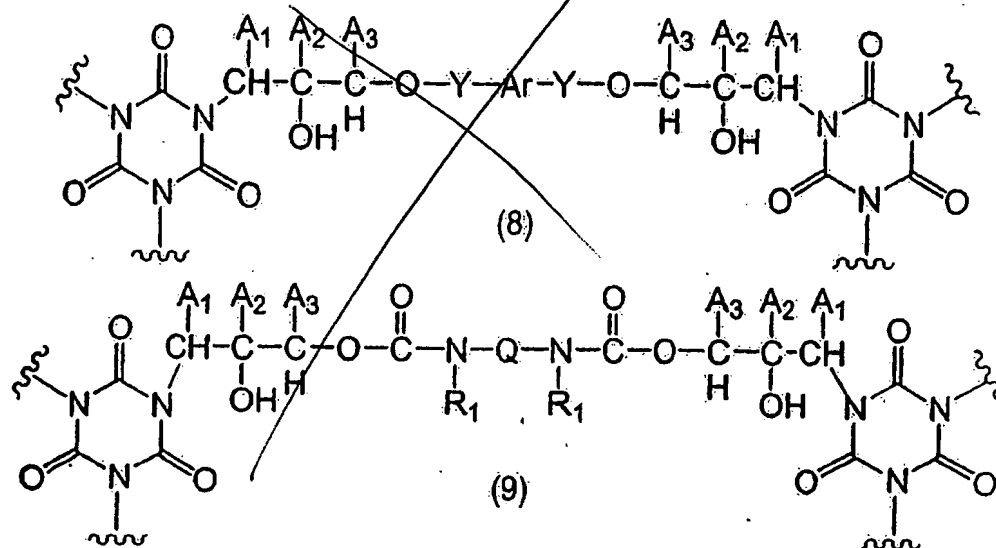


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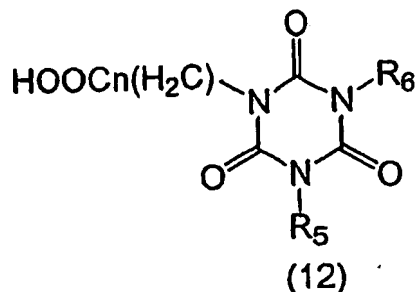
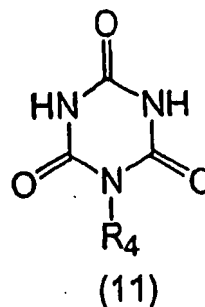
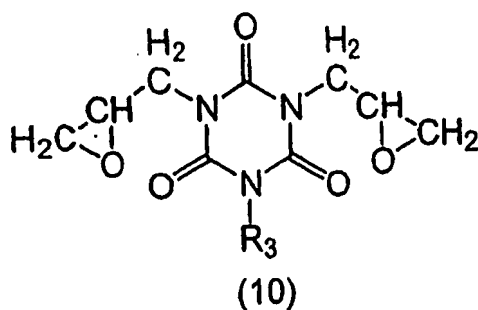
CONFIRMATION NO. 7775

SERIAL NUMBER 10/530,349	FILING OR 371(c) DATE 04/06/2005 RULE	CLASS 430	GROUP ART UNIT 1752	ATTORNEY DOCKET NO. 123418	
APPLICANTS Takahiro Kishioka, Nei-gun, JAPAN; Ken-ichi Mizusawa, Chiyoda-ku, JAPAN; Tomoyuki Enomoto, Nei-gun, JAPAN; Rikimaru Sakamoto, Nei-gun, JAPAN; Keisuke Nakayama, Nei-gun, JAPAN; Yasuo Kawamura, Funabashi-shi, JAPAN;					
** CONTINUING DATA ***** This application is a 371 of PCT/JP03/12875 10/08/2003 <i>KIA</i>					
** FOREIGN APPLICATIONS ***** JAPAN 2002-295777 10/09/2002 JAPAN 2003-126886 05/02/2003 <i>KIA</i>					
IF REQUIRED, FOREIGN FILING LICENSE GRANTED ** 09/18/2006					
Foreign Priority claimed <input checked="" type="checkbox"/> yes <input type="checkbox"/> no 35 USC 119 (a-d) conditions met <input checked="" type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> Met after Allowance Verified and Acknowledged <i>msk for</i> Examiner's Signature Initials		STATE OR COUNTRY JAPAN	SHEETS DRAWING 0	TOTAL CLAIMS 19	INDEPENDENT CLAIMS 1
ADDRESS 25944					
TITLE Composition for forming anti-reflective coating for use in lithography					
FILING FEE RECEIVED 1030	FEES: Authority has been given in Paper No. _____ to charge/credit DEPOSIT ACCOUNT No. _____ for following:		<input type="checkbox"/> All Fees <input type="checkbox"/> 1.16 Fees (Filing) <input type="checkbox"/> 1.17 Fees (Processing Ext. of time) <input type="checkbox"/> 1.18 Fees (Issue) <input type="checkbox"/> Other _____ <input type="checkbox"/> Credit		

compound having a structure in which at least two triazine trione rings are linked through a linking group of formula (4) or (5) on the nitrogen atoms has a structure of formula (8) or (9):



6. (Currently Amended) ~~The composition~~ A composition for forming anti-reflective coating characterized in that the composition comprises a triazine trione compound having hydroxyalkyl structure as substituent on nitrogen atom, a triazine trione oligomer compound having hydroxyalkyl structure as substituent on nitrogen atom, or a triazine trione polymer compound having hydroxyalkyl structure as substituent on nitrogen atom; and for forming anti-reflective coating according to claim 1, wherein the triazine trione oligomer compound having hydroxyalkyl structure as substituent on nitrogen atom, or triazine trione polymer compound having hydroxyalkyl structure as substituent on nitrogen atom is a reaction product of a compound of formula (10) with a compound of formula (11) or (12):

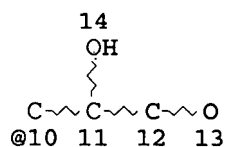
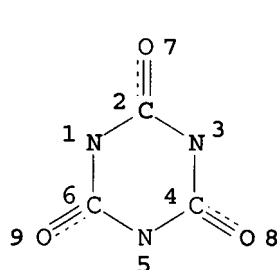


wherein R_3 is C_{1-6} alkyl, C_{3-6} alkenyl, phenyl, benzyl or 2,3-epoxypropyl, R_4 and R_5 are C_{1-6} alkyl, C_{3-6} alkenyl, phenyl or benzyl, R_6 is C_{1-6} alkyl, phenyl, benzyl or $-(CH_2)_nCOOH$, and n is a number of 1, 2 or 3.

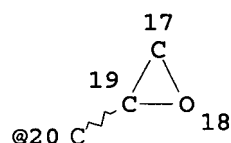
7. (Currently Amended) The composition for forming anti-reflective coating according to ~~claim 3~~, claim 1, wherein the triazine trione compound having a substituent of formula (2) as substituent on nitrogen atom, or the triazine trione oligomer compound or triazine trione polymer compound having a structure in which at least two triazine trione rings are linked through a linking group of formula (4) on the nitrogen atoms is produced from a triazine trione compound having at least two nitrogen atoms having a substituent of formula (13) on nitrogen atom and a phenyl compound or naphthalene compound of formula (14) having at least two substituents selected from carboxy and hydroxy which are identical or different from each other

=> d que 140

L4 198713 SEA FILE=REGISTRY ABB=ON PLU=ON 46.492/RID
 L11 STR



Ak~COOH
 @15 16



G1 21

VAR G1=10/15/20

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DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

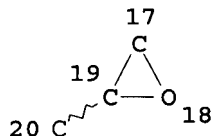
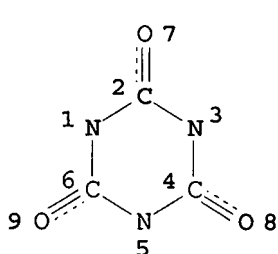
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NUMBER OF NODES IS 21

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L19 STR



NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

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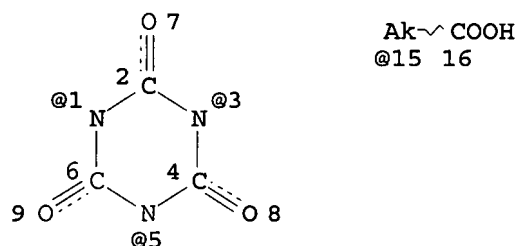
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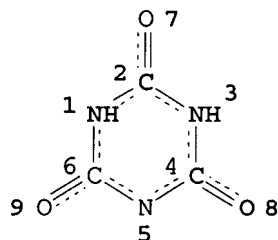
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VPA 15-1/3/5 U
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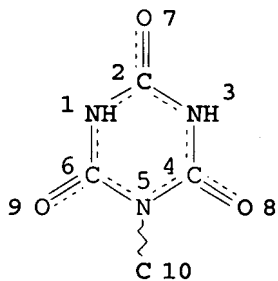
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 L29 STR



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 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
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 NUMBER OF NODES IS 9

STEREO ATTRIBUTES: NONE
 L31 STR



NODE ATTRIBUTES:
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RSPEC I

NUMBER OF NODES IS 10

STEREO ATTRIBUTES: NONE

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 L38 214 SEA FILE=HCAPLUS ABB=ON PLU=ON L35
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 L40 1 SEA FILE=HCAPLUS ABB=ON PLU=ON L37 AND L38 AND L39

=> d l40 ibib ed abs hitstr hitind

L40 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:333974 HCAPLUS

DOCUMENT NUMBER: 140:365660

TITLE: Composition for forming antireflection film for lithography

INVENTOR(S): Kishioka, Takahiro; Mizusawa, Ken-ichi; Enomoto, Tomoyuki; Sakamoto, Rikimaru; Nakayama, Keisuke; Kawamura, Yasuo

PATENT ASSIGNEE(S): Nissan Chemical Industries, Ltd., Japan

SOURCE: PCT Int. Appl., 85 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004034148	A1	20040422	WO 2003-JP12875	20031008
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2003271123	A1	20040504	AU 2003-271123	20031008
EP 1560070	A1	20050803	EP 2003-751376	20031008
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
CN 1723418	A	20060118	CN 2003-80105388	20031008
PRIORITY APPLN. INFO.:			JP 2002-295777	A 20021009
			JP 2003-126886	A 20030502
			WO 2003-JP12875	W 20031008

ED Entered STN: 23 Apr 2004

AB A composition for forming an antireflection film comprises a compound, an

oligomer or a polymer comprising a triazine-trione moiety having a hydroxyalkyl structure as a substitute on a nitrogen atom. The composition can provide an antireflection film which exhibits good absorptivity for a light having a wavelength suitable for use in the production of a semiconductor device, has high antireflection effect, and exhibits a dry etching rate greater than that of a photoresist layer.

IT 681440-09-5P 681440-10-8P 681440-11-9P
681440-12-0P 681440-14-2P 681440-16-4P
681440-19-7P

(oligomeric; photolithog antireflective film compns. containing)

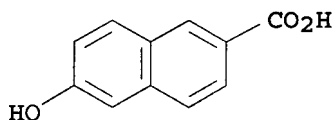
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CN 2-Naphthalenecarboxylic acid, 6-hydroxy-, polymer with
1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione (9CI)
(CA INDEX NAME)

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CRN 16712-64-4

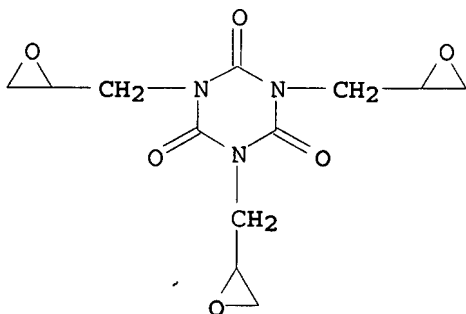
CMF C11 H8 O3



CM 2

CRN 2451-62-9

CMF C12 H15 N3 O6



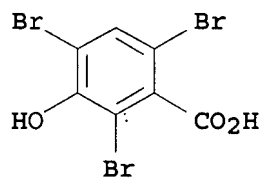
RN 681440-10-8 HCAPLUS

CN Benzoic acid, 2,4,6-tribromo-3-hydroxy-, polymer with
1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione (9CI)
(CA INDEX NAME)

CM 1

CRN 14348-40-4

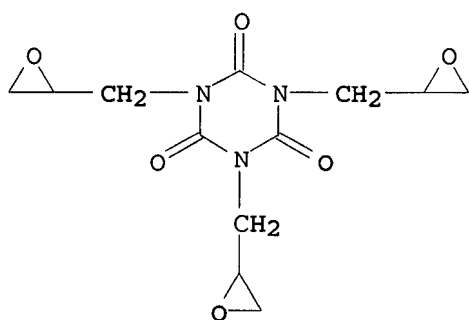
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CM 2

CRN 2451-62-9

CMF C12 H15 N3 O6



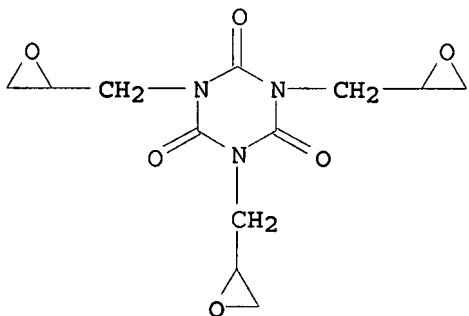
RN 681440-11-9 HCAPLUS

CN Benzoic acid, 2-hydroxy-3,5-diiodo-, polymer with 1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione (9CI) (CA INDEX NAME)

CM 1

CRN 2451-62-9

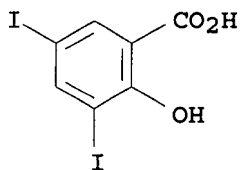
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CM 2

CRN 133-91-5

CMF C7 H4 I2 O3



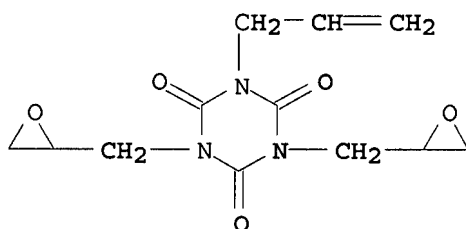
RN 681440-12-0 HCAPLUS

CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3-bis(oxiranylmethyl)-5-(2-propenyl)-, polymer with 1-(2-propenyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione (9CI) (CA INDEX NAME)

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CRN 69731-45-9

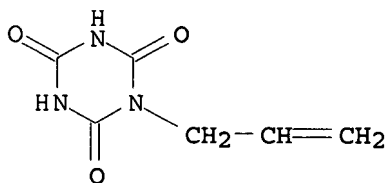
CMF C12 H15 N3 O5



CM 2

CRN 3030-60-2

CMF C6 H7 N3 O3



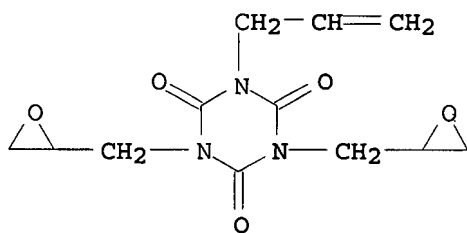
RN 681440-14-2 HCAPLUS

CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3-bis(oxiranylmethyl)-5-(2-propenyl)-, polymer with 1-phenyl-1,3,5-triazine-2,4,6(1H,3H,5H)-trione (9CI) (CA INDEX NAME)

CM 1

CRN 69731-45-9

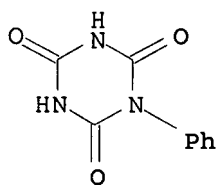
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CRN 5725-46-2

CMF C9 H7 N3 O3



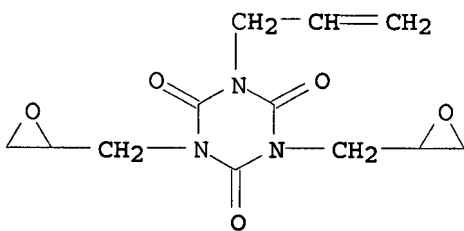
RN 681440-16-4 HCAPLUS

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CRN 69731-45-9

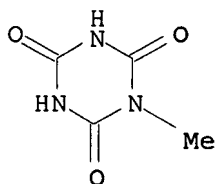
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CM 2

CRN 6726-47-2

CMF C4 H5 N3 O3



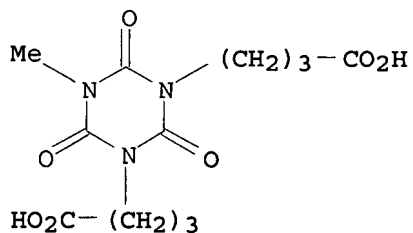
RN 681440-19-7 HCAPLUS

CN 1,3,5-Triazine-1,3(2H,4H)-dibutanoic acid, dihydro-5-methyl-2,4,6-trioxo-, polymer with 1,3-bis(oxiranylmethyl)-5-(2-propenyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione (9CI) (CA INDEX NAME)

CM 1

CRN 681440-18-6

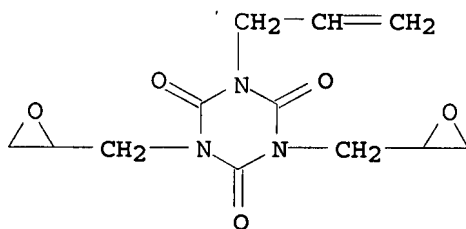
CMF C12 H17 N3 O7



CM 2

CRN 69731-45-9

CMF C12 H15 N3 O5



IT 681440-23-3P

(photolithog antireflective film compns. containing)

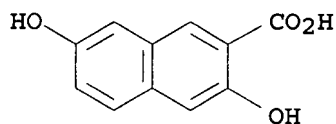
RN 681440-23-3 HCAPLUS

CN 2-Naphthalenecarboxylic acid, 3,7-dihydroxy-, polymer with 1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione (9CI) (CA INDEX NAME)

CM 1

CRN 83511-07-3

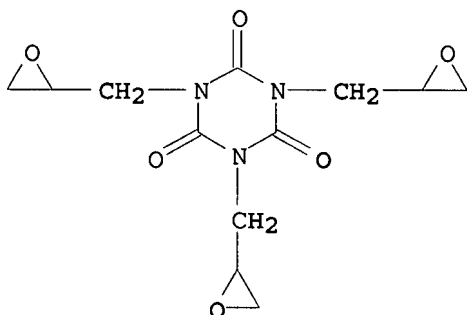
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CM 2

CRN 2451-62-9

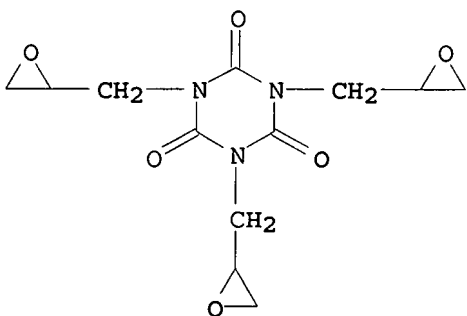
CMF C12 H15 N3 O6



IT 2451-62-9, Tris(2,3-epoxypropyl)isocyanurate
(reaction with carboxyalkyldimethylisocyanuric acids in preparation of
antireflective coating composition component)

RN 2451-62-9 HCAPLUS

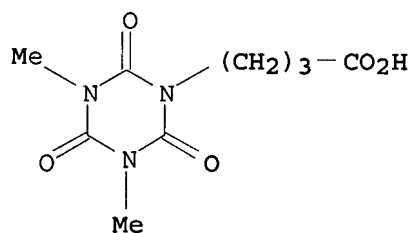
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(CA INDEX NAME)



IT 681440-24-4 681440-25-5
(reaction with tris(2,3-epoxypropyl) isocyanurate in preparation of
antireflective coating composition component)

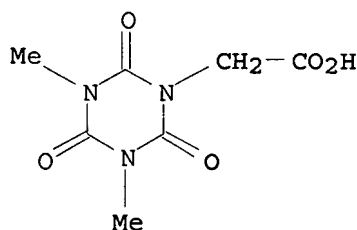
RN 681440-24-4 HCAPLUS

CN 1,3,5-Triazine-1(2H)-butanoic acid, tetrahydro-3,5-dimethyl-2,4,6-
trioxo- (9CI) (CA INDEX NAME)



RN 681440-25-5 HCAPLUS

CN 1,3,5-Triazine-1(2H)-acetic acid, tetrahydro-3,5-dimethyl-2,4,6-trioxo-
(9CI) (CA INDEX NAME)



IC ICM G03F007-11

ICS H01L021-027

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)

Section cross-reference(s): 76

IT 681440-09-5P 681440-10-8P 681440-11-9P

681440-12-0P 681440-13-1P 681440-14-2P

681440-15-3P 681440-16-4P 681440-17-5P

681440-19-7P 681440-20-0P

(oligomeric; photolithog antireflective film compns. containing)

IT 681440-21-1P 681440-22-2P 681440-23-3P

(photolithog antireflective film compns. containing)

IT 2451-62-9, Tris(2,3-epoxypropyl)isocyanurate

(reaction with carboxyalkyldimethylisocyanuric acids in preparation of
antireflective coating composition component)

IT 681440-24-4 681440-25-5

(reaction with tris(2,3-epoxypropyl) isocyanurate in preparation of
antireflective coating composition component)

REFERENCE COUNT:

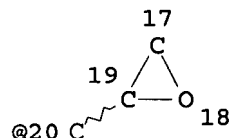
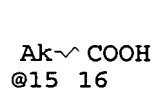
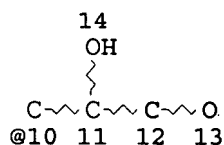
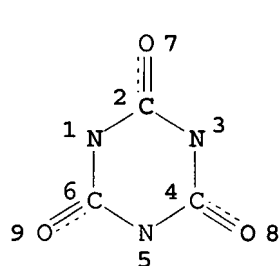
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THERE ARE 7 CITED REFERENCES AVAILABLE FOR
THIS RECORD. ALL CITATIONS AVAILABLE IN THE
RE FORMAT

=> d que 143

L4 198713 SEA FILE=REGISTRY ABB=ON PLU=ON 46.492/RID

L11 STR



G1 21

VAR G1=10/15/20

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

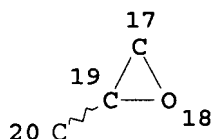
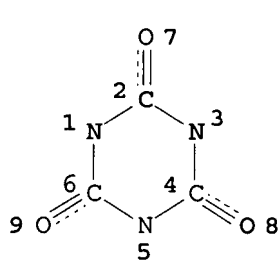
RSPEC I

NUMBER OF NODES IS 21

STEREO ATTRIBUTES: NONE

L13 1699 SEA FILE=REGISTRY SUB=L4 SSS FUL L11

L19 STR



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DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

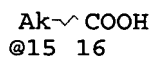
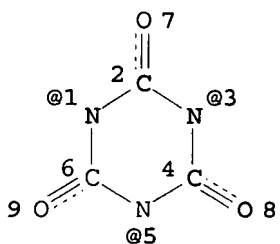
RSPEC I

NUMBER OF NODES IS 13

STEREO ATTRIBUTES: NONE

L21 1272 SEA FILE=REGISTRY SUB=L13 SSS FUL L19

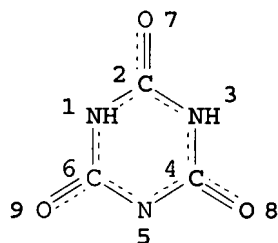
L22 STR



VPA 15-1/3/5 U
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 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
 RSPEC I
 NUMBER OF NODES IS 11

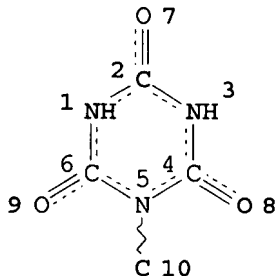
STEREO ATTRIBUTES: NONE
 L24 179 SEA FILE=REGISTRY SUB=L13 SSS FUL L22
 L29 STR



NODE ATTRIBUTES:
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
 RSPEC I
 NUMBER OF NODES IS 9

STEREO ATTRIBUTES: NONE
 L31 STR



NODE ATTRIBUTES:
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
 RSPEC I
 NUMBER OF NODES IS 10

STEREO ATTRIBUTES: NONE
 L33 1363 SEA FILE=REGISTRY SUB=L4 SSS FUL L29
 L35 457 SEA FILE=REGISTRY SUB=L33 SSS FUL L31
 L37 152 SEA FILE=HCAPLUS ABB=ON PLU=ON L24
 L38 214 SEA FILE=HCAPLUS ABB=ON PLU=ON L35
 L39 2081 SEA FILE=HCAPLUS ABB=ON PLU=ON L21

L41 12 SEA FILE=HCAPLUS ABB=ON PLU=ON L39 AND L38
 L42 11 SEA FILE=HCAPLUS ABB=ON PLU=ON L39 AND L37
 L43 22 SEA FILE=HCAPLUS ABB=ON PLU=ON (L41 OR L42)

=> d 143 1-22 ibib ed abs hitstr hitind

L43 ANSWER 1 OF 22 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:680329 HCAPLUS

DOCUMENT NUMBER: 145:125295

TITLE: Glycidyl-containing triazines derivatives for
 compounding with epoxy resins

INVENTOR(S): Miyauchi, Yukio

PATENT ASSIGNEE(S): Shikoku Chemicals Corp., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

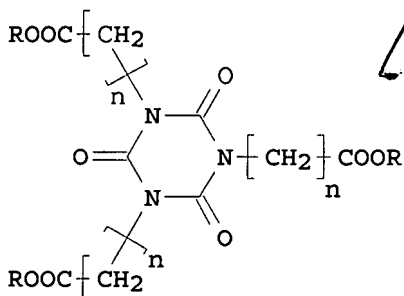
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2006182834	A	20060713	JP 2004-375621	20041227
PRIORITY APPLN. INFO.:			JP 2004-375621	20041227

OTHER SOURCE(S): MARPAT 145:125295

ED Entered STN: 14 Jul 2006

GI



AB The invention relates to triazine derivs. I [R = CH₂CHOHCH₂OQCMe₂Q(OCH₂CHOHCH₂OQCMe₂Q)mOGly; Q = p-phenylene; m = 0-2; n = 1-3]. The triazine derivs. show good compatibility to epoxy resins and work as curing agents to provide epoxy resins with good transparency and heat and weather resistance. Thus, tris(3-carboxypropyl)isocyanurate was reacted with bisphenol A epoxy resin (Epikote 828) to give I (m = 0, n = 3).

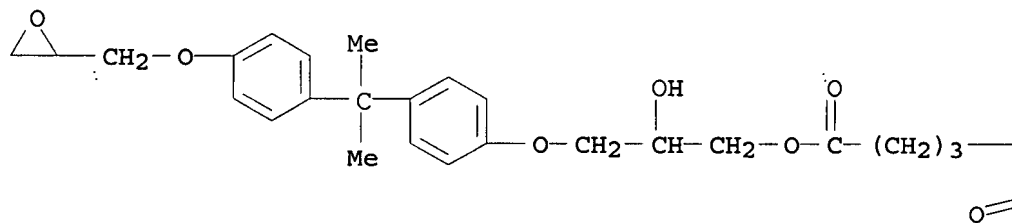
IT 897387-55-2P

(glycidyl-containing triazines for epoxy resin crosslinkers with good compatibility)

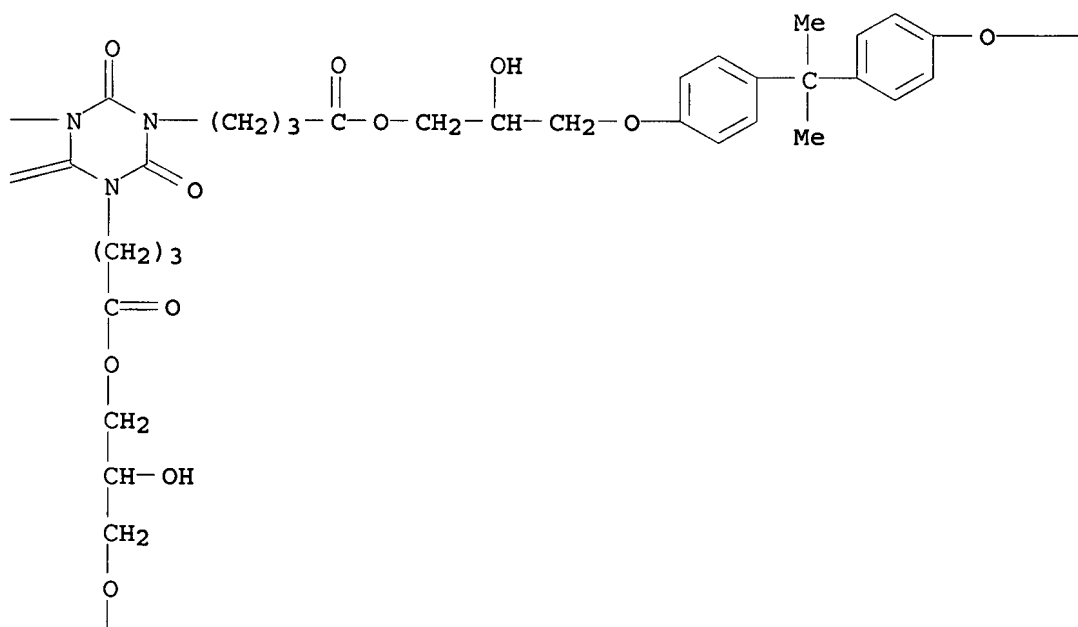
RN 897387-55-2 HCAPLUS

CN 1,3,5-Triazine-1,3,5(2H,4H,6H)-tributanoic acid, 2,4,6-trioxo-, tris[2-hydroxy-3-[4-[1-methyl-1-[4-(oxiranylmethoxy)phenyl]ethyl]phenoxy]propyl] ester (9CI) (CA INDEX NAME)

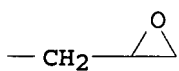
PAGE 1-A



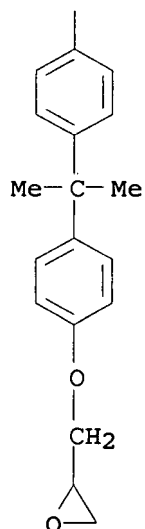
PAGE 1-B



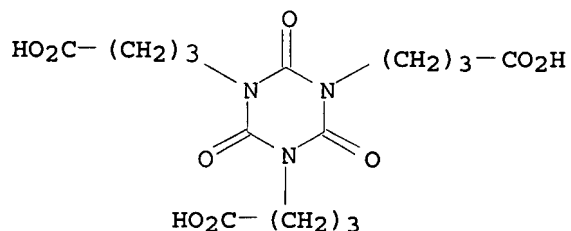
PAGE 1-C



PAGE 2-B



IT 319017-31-7
 (glycidyl-containing triazines for epoxy resin crosslinkers with good compatibility)
 RN 319017-31-7 HCAPLUS
 CN 1,3,5-Triazine-1,3,5(2H,4H,6H)-tributanoic acid, 2,4,6-trioxo- (9CI)
 (CA INDEX NAME)



CC 37-6 (Plastics Manufacture and Processing)
 IT 897387-55-2P
 (glycidyl-containing triazines for epoxy resin crosslinkers with good compatibility)
 IT 25068-38-6, Epikote 828 319017-31-7
 (glycidyl-containing triazines for epoxy resin crosslinkers with good compatibility)

L43 ANSWER 2 OF 22 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:1153322 HCAPLUS

DOCUMENT NUMBER: 143:430027

TITLE: Antireflecting film for photoresist layer in photolithography

INVENTOR(S): Kishioka, Takahiro

PATENT ASSIGNEE(S): Nissan Chemical Industries, Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 20 pp.

CODEN: JKXXAF

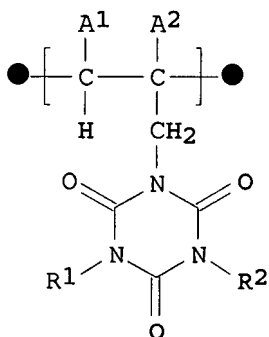
DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005300825	A	20051027	JP 2004-115391	20040409
PRIORITY APPLN. INFO.:			JP 2004-115391	20040409

ED Entered STN: 28 Oct 2005
GI



I

AB The title composition contains a polymer in a solvent, wherein the polymer has a repeating unit I (A1-2 = H, Me, ethyl; R1-2 = H, C1-6 = alkyl, C3-6 = alkenyl, benzyl, etc.). The film generates little intermixing with a photoresist.

IT 311810-13-6DP, crosslinked 868057-84-5DP, crosslinked (antireflecting film for photoresist layer in photolithog.)

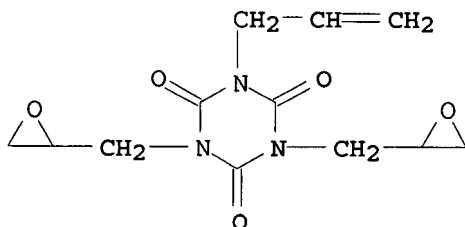
RN 311810-13-6 HCAPLUS

CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3-bis(oxiranylmethyl)-5-(2-propenyl)-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 69731-45-9

CMF C12 H15 N3 O5

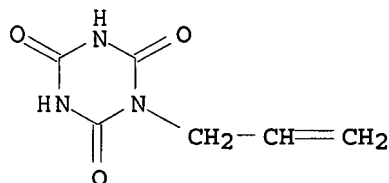


RN 868057-84-5 HCAPLUS

CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1-(2-propenyl)-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 3030-60-2
CMF C6 H7 N3 O3



IC ICM G03F007-11
ICS C08F026-06; C09D005-00; C09D139-04; H01L021-027
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 37
IT 65-85-0DP, Benzoic acid, reaction product with allyl isocyanurate polymer 311810-13-6DP, crosslinked 868057-84-5DP, crosslinked 868057-86-7DP, crosslinked (antireflecting film for photoresist layer in photolithog.)

L43 ANSWER 3 OF 22 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2005:1130913 HCAPLUS
DOCUMENT NUMBER: 143:413507
TITLE: Antireflection film for semiconductor containing condensation-type polymer
INVENTOR(S): Kishioka, Takahiro; Sakamoto, Rikimaru; Hiroi, Yoshiomi; Maruyama, Daisuke
PATENT ASSIGNEE(S): Nissan Chemical Industries, Ltd., Japan
SOURCE: PCT Int. Appl., 59 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005098542	A1	20051020	WO 2005-JP6785	20050406
<p>W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW</p> <p>RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG</p>				
EP 1757986	A1	20070228	EP 2005-728797	20050406
R: DE, FR, GB, IT, NL				
CN 1965268	A	20070516	CN 2005-80018731	20050406
PRIORITY APPLN. INFO.:				
			JP 2004-115385	A 20040409

WO 2005-JP6785

W 20050406

ED Entered STN: 21 Oct 2005

AB To provide an antireflection film that exhibits a high light reflection preventing effect, being free from intermixing with photoresist, and that can be employed in a lithog. process using irradiation beam, such as those from ArF excimer laser and F2 excimer laser, and further to provide a composition for forming such an antireflection film. There is provided an antireflection film forming a composition characterized by containing a polymer having a pyrimidine trione structure, imidazolidinedione structure, imidazolidinetriene structure or triazinetrione structure and containing a solvent.

IT 867300-29-6P 867300-30-9P 867300-31-0P
867300-34-3P 867300-36-5P 867300-39-8P
867300-40-1P 867300-41-2P 867300-42-3P
867300-43-4P 867330-22-1P

(preparation of antireflection films for semiconductor containing condensation-type polymer)

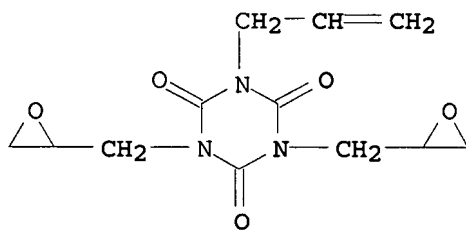
RN 867300-29-6 HCAPLUS

CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3-bis(oxiranylmethyl)-5-(2-propenyl)-, polymer with 5,5-diethyl-2,4,6(1H,3H,5H)-pyrimidinetrione (9CI) (CA INDEX NAME)

CM 1

CRN 69731-45-9

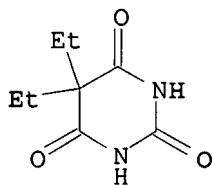
CMF C12 H15 N3 O5



CM 2

CRN 57-44-3

CMF C8 H12 N2 O3



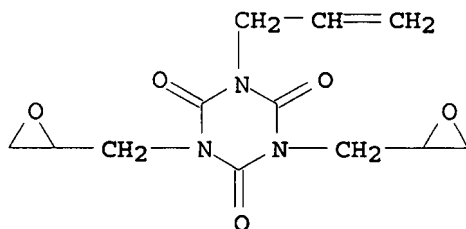
RN 867300-30-9 HCAPLUS

CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3-bis(oxiranylmethyl)-5-(2-propenyl)-, polymer with 5-ethyl-5-phenyl-2,4,6(1H,3H,5H)-pyrimidinetrione (9CI) (CA INDEX NAME)

CM 1

CRN 69731-45-9

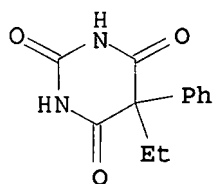
CMF C12 H15 N3 O5



CM 2

CRN 50-06-6

CMF C12 H12 N2 O3



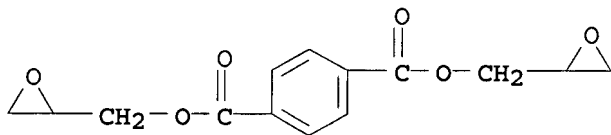
RN 867300-31-0 HCAPLUS

CN 1,4-Benzenedicarboxylic acid, bis(oxiranylmethyl) ester, polymer with 1-(2-propenyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione (9CI) (CA INDEX NAME)

CM 1

CRN 7195-44-0

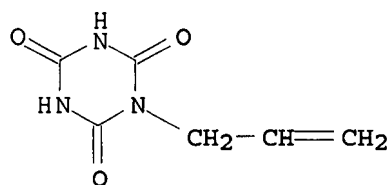
CMF C14 H14 O6



CM 2

CRN 3030-60-2

CMF C6 H7 N3 O3



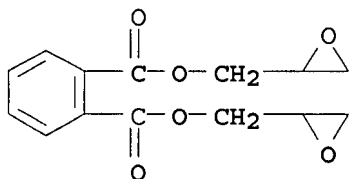
RN 867300-34-3 HCAPLUS

CN 1,2-Benzenedicarboxylic acid, bis(oxiranylmethyl) ester, polymer with 1-(2-propenyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione (9CI) (CA INDEX NAME)

CM 1

CRN 7195-45-1

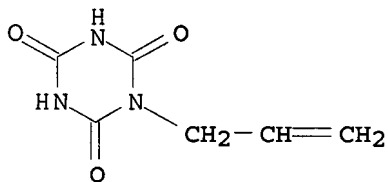
CMF C14 H14 O6



CM 2

CRN 3030-60-2

CMF C6 H7 N3 O3



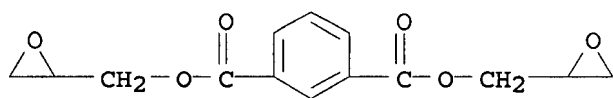
RN 867300-36-5 HCAPLUS

CN 1,3-Benzenedicarboxylic acid, bis(oxiranylmethyl) ester, polymer with 1-(2-propenyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione (9CI) (CA INDEX NAME)

CM 1

CRN 7195-43-9

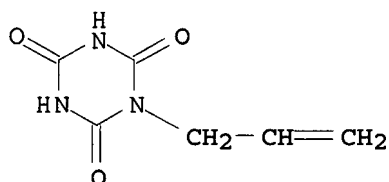
CMF C14 H14 O6



CM 2

CRN 3030-60-2

CMF C6 H7 N3 O3



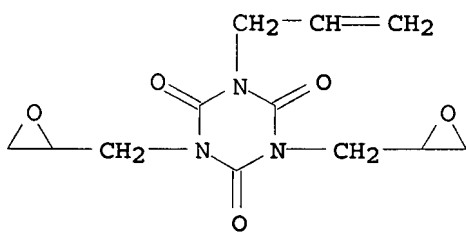
RN 867300-39-8 HCAPLUS

CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3-bis(oxiranylmethyl)-5-(2-propenyl)-, polymer with 5,5-diethyl-2,4,6(1H,3H,5H)-pyrimidinetrione and 2,2'-[1,2-ethanediylbis(oxymethylene)]bis[oxirane] (9CI) (CA INDEX NAME)

CM 1

CRN 69731-45-9

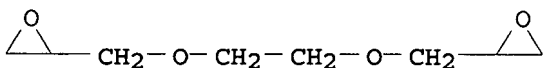
CMF C12 H15 N3 O5



CM 2

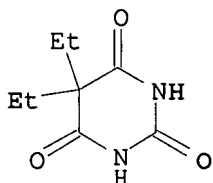
CRN 2224-15-9

CMF C8 H14 O4



CM 3

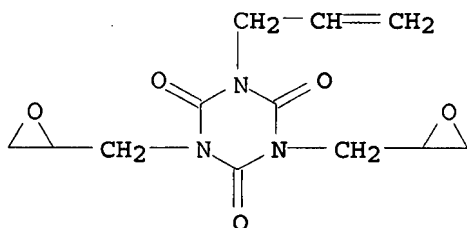
CRN 57-44-3
CMF C8 H12 N2 O3



RN 867300-40-1 HCAPLUS
CN 1,4-Benzenedicarboxylic acid, polymer with 1,3-bis(oxiranylmethyl)-5-(2-propenyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione (9CI) (CA INDEX NAME)

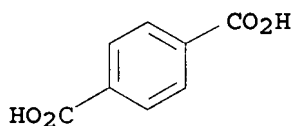
CM 1

CRN 69731-45-9
CMF C12 H15 N3 O5



CM 2

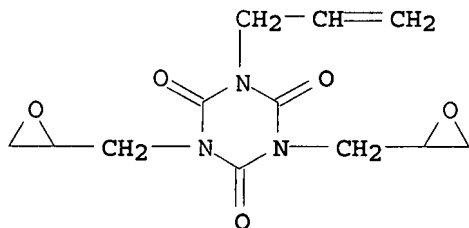
CRN 100-21-0
CMF C8 H6 O4



RN 867300-41-2 HCAPLUS
CN 1,4-Benzenedicarboxylic acid, polymer with 1,3-bis(oxiranylmethyl)-5-(2-propenyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione and 2,2'-[1,4-butanediylbis(oxymethylene)]bis[oxirane] (9CI) (CA INDEX NAME)

CM 1

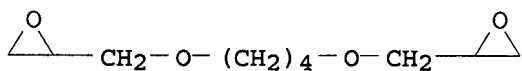
CRN 69731-45-9
CMF C12 H15 N3 O5



CM 2

CRN 2425-79-8

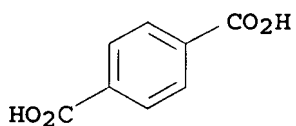
CMF C10 H18 O4



CM 3

CRN 100-21-0

CMF C8 H6 O4



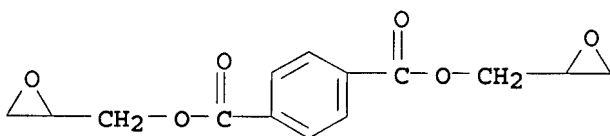
RN 867300-42-3 HCAPLUS

CN 1,4-Benzenedicarboxylic acid, bis(oxiranylmethyl) ester, polymer with 2,2'-[1,4-butanediylbis(oxymethylene)]bis[oxirane] and 1-(2-propenyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione (9CI) (CA INDEX NAME)

CM 1

CRN 7195-44-0

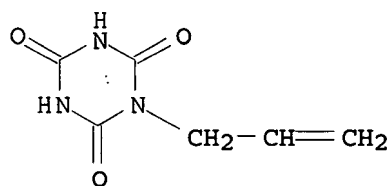
CMF C14 H14 O6



CM 2

CRN 3030-60-2

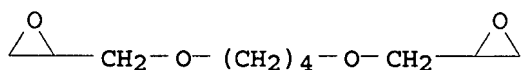
CMF C6 H7 N3 O3



CM 3

CRN 2425-79-8

CMF C10 H18 O4



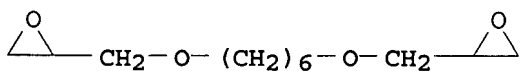
RN 867300-43-4 HCAPLUS

CN 1,4-Benzenedicarboxylic acid, bis(oxiranylmethyl) ester, polymer with
 2,2'-[1,6-hexanediylbis(oxymethylene)]bis[oxirane] and
 1-(2-propenyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione (9CI) (CA INDEX
 NAME)

CM 1

CRN 16096-31-4

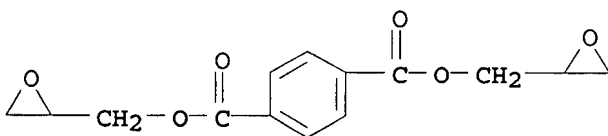
CMF C12 H22 O4



CM 2

CRN 7195-44-0

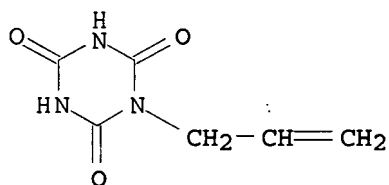
CMF C14 H14 O6



CM 3

CRN 3030-60-2

CMF C6 H7 N3 O3



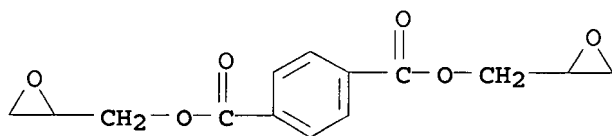
RN 867330-22-1 HCAPLUS

CN 1,4-Benzenedicarboxylic acid, bis(oxiranylmethyl) ester, polymer with bis(oxiranylmethyl) 1,2-cyclohexanedicarboxylate and 1-(2-propenyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione (9CI) (CA INDEX NAME)

CM 1

CRN 7195-44-0

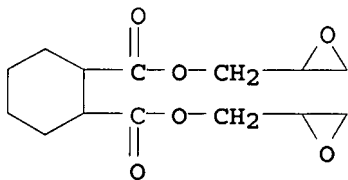
CMF C14 H14 O6



CM 2

CRN 5493-45-8

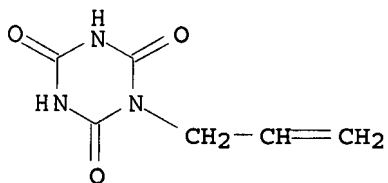
CMF C14 H20 O6



CM 3

CRN 3030-60-2

CMF C6 H7 N3 O3



IC ICM G03F007-11
ICS C08L079-04; C09D163-00; C09D179-04; H01L021-027
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38, 73, 76
IT 867300-29-6P 867300-30-9P 867300-31-0P
867300-32-1P 867300-33-2P 867300-34-3P 867300-35-4P
867300-36-5P 867300-37-6P 867300-38-7P
867300-39-8P 867300-40-1P 867300-41-2P
867300-42-3P 867300-43-4P 867330-22-1P
867330-23-2P 867330-24-3P 867330-25-4P
(preparation of antireflection films for semiconductor containing condensation-type polymer)

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L43 ANSWER 4 OF 22 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:872885 HCAPLUS

DOCUMENT NUMBER: 141:372751

TITLE: Composition for formation of underlayer film for lithography containing epoxy compound and carboxylic acid compound

INVENTOR(S): Kishioka, Takahiro

PATENT ASSIGNEE(S): Nissan Chemical Industries, Ltd., Japan

SOURCE: PCT Int. Appl., 43 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

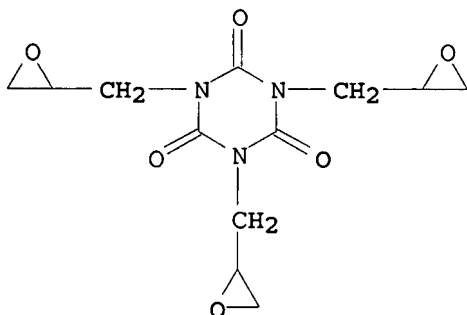
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004090640	A1	2004/02/21	WO 2004-JP4764	2004/04/01
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
EP 1617289	A1	2006/01/18	EP 2004-725145	2004/04/01
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR			
CN 1768306	A	2006/05/03	CN 2004-80009217	2004/04/01
US 2006234156	A1	2006/10/19	US 2005-551130	2005/09/29
PRIORITY APPLN. INFO.:			JP 2003-99228	A 2003/04/02
			WO 2004-JP4764	W 2004/04/01

ED Entered STN: 21 Oct 2004

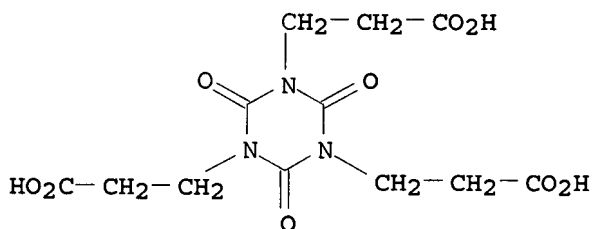
AB A composition for formation of underlayer film for lithog. that is used in

the lithog. process for producing semiconductor devices; and an underlayer film exhibiting a dry etching rate greater than in the use of photoresists. In particular, a composition for formation of underlayer film, capable of forming an underlayer film without the need to use a crosslinking reaction catalyzed by a strong acid, which composition comprises a component having epoxy group (polymeric compound or compound) and a component having phenolic hydroxyl group, carboxyl group, protected carboxyl group or acid anhydride structure (polymeric compound or compound).

IT 2451-62-9, Tris(2,3-epoxypropyl)isocyanurate 2904-41-8
 , Tris(2-carboxyethyl)isocyanurate
 (composition for formation of underlayer film for lithog. containing epoxy compound and carboxylic acid compound)
 RN 2451-62-9 HCAPLUS
 CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3,5-tris(2-oxiranylmethyl)-
 (CA INDEX NAME)



RN 2904-41-8 HCAPLUS
 CN 1,3,5-Triazine-1,3,5(2H,4H,6H)-tripropanoic acid, 2,4,6-trioxo- (CA INDEX NAME)



IC ICM G03F007-11
 ICS C08G059-40; H01L021-027
 CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 Section cross-reference(s): 76
 IT 2451-62-9, Tris(2,3-epoxypropyl)isocyanurate 2904-41-8
 , Tris(2-carboxyethyl)isocyanurate 9003-01-4, Poly(acrylic acid)
 (composition for formation of underlayer film for lithog. containing epoxy compound and carboxylic acid compound)
 REFERENCE COUNT: 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L43 ANSWER 5 OF 22 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:333974 HCAPLUS
 DOCUMENT NUMBER: 140:365660
 TITLE: Composition for forming antireflection film for lithography
 INVENTOR(S): Kishioka, Takahiro; Mizusawa, Ken-ichi; Enomoto, Tomoyuki; Sakamoto, Rikimaru; Nakayama, Keisuke; Kawamura, Yasuo
 PATENT ASSIGNEE(S): Nissan Chemical Industries, Ltd., Japan
 SOURCE: PCT Int. Appl., 85 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004034148	A1	20040422	WO 2003-JP12875	20031008
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
AU 2003271123	A1	20040504	AU 2003-271123	20031008
EP 1560070	A1	20050883	EP 2003-751376	20031008
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK			
CN 1723418	A	20060118	CN 2003-80105388	20031008
PRIORITY APPLN. INFO.:			JP 2002-295777	A 20021009
			JP 2003-126886	A 20030502
			WO 2003-JP12875	W 20031008

ED Entered STN: 23 Apr 2004

AB A composition for forming an antireflection film comprises a compound, an oligomer or a polymer comprising a triazine-trione moiety having a hydroxyalkyl structure as a substitute on a nitrogen atom. The composition can provide an antireflection film which exhibits good absorptivity for a light having a wavelength suitable for use in the production of a semiconductor device, has high antireflection effect, and exhibits a dry etching rate greater than that of a photoresist layer.

IT 681440-09-5P 681440-10-8P 681440-11-9P
 681440-12-0P 681440-14-2P 681440-16-4P
 681440-19-7P

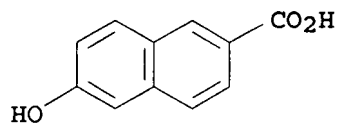
(oligomeric; photolithog antireflective film compns. containing)

RN 681440-09-5 HCAPLUS

CN 2-Naphthalenecarboxylic acid, 6-hydroxy-, polymer with
 1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione (9CI)
 (CA INDEX NAME)

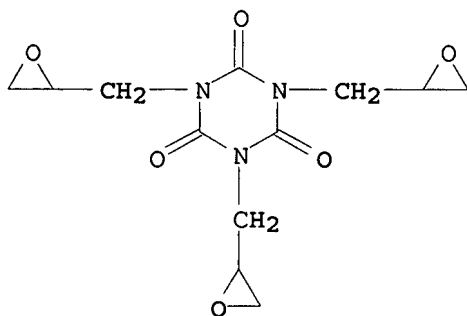
CM 1

CRN 16712-64-4
CMF C11 H8 O3



CM 2

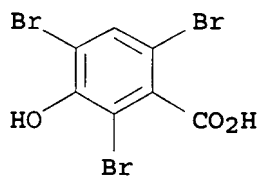
CRN 2451-62-9
CMF C12 H15 N3 O6



RN 681440-10-8 HCAPLUS
CN Benzoic acid, 2,4,6-tribromo-3-hydroxy-, polymer with
1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione (9CI)
(CA INDEX NAME)

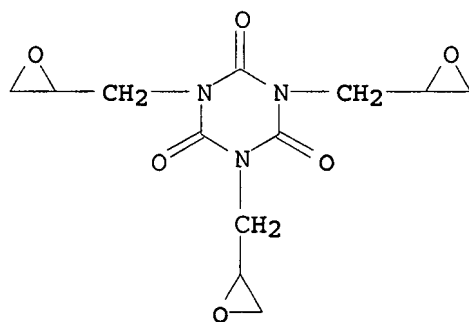
CM 1

CRN 14348-40-4
CMF C7 H3 Br3 O3



CM 2

CRN 2451-62-9
CMF C12 H15 N3 O6



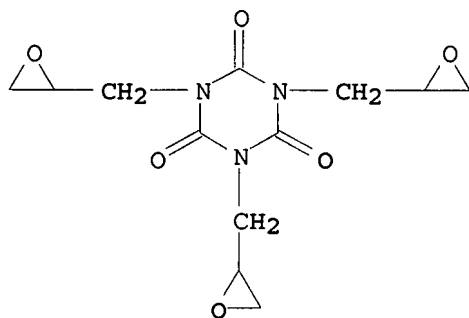
RN 681440-11-9 HCAPLUS

CN Benzoic acid, 2-hydroxy-3,5-diiodo-, polymer with 1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione (9CI) (CA INDEX NAME)

CM 1

CRN 2451-62-9

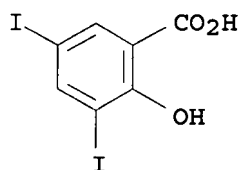
CMF C12 H15 N3 O6



CM 2

CRN 133-91-5

CMF C7 H4 I2 O3

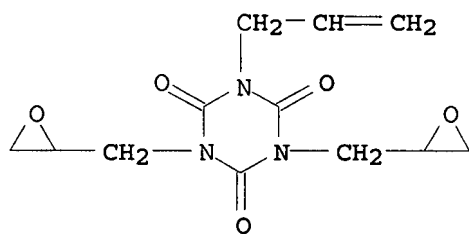


RN 681440-12-0 HCAPLUS

CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3-bis(oxiranylmethyl)-5-(2-propenyl)-, polymer with 1-(2-propenyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione (9CI) (CA INDEX NAME)

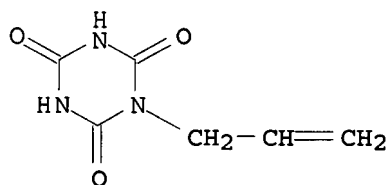
CM 1

CRN 69731-45-9
CMF C12 H15 N3 O5



CM 2

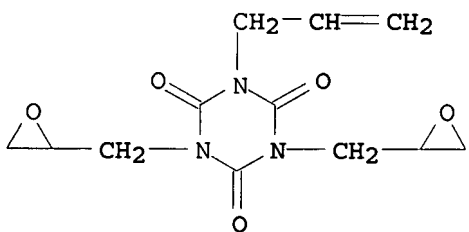
CRN 3030-60-2
CMF C6 H7 N3 O3



RN 681440-14-2 HCAPLUS
CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3-bis(oxiran-2-ylmethyl)-5-(2-propenyl)-, polymer with 1-phenyl-1,3,5-triazine-2,4,6(1H,3H,5H)-trione (9CI) (CA INDEX NAME)

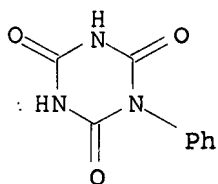
CM 1

CRN 69731-45-9
CMF C12 H15 N3 O5



CM 2

CRN 5725-46-2
CMF C9 H7 N3 O3



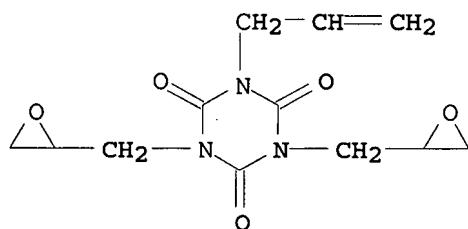
RN 681440-16-4 HCAPLUS

CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3-bis(oxiranylmethyl)-5-(2-propenyl)-, polymer with 1-methyl-1,3,5-triazine-2,4,6(1H,3H,5H)-trione (9CI) (CA INDEX NAME)

CM 1

CRN 69731-45-9

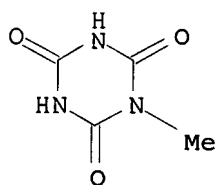
CMF C12 H15 N3 O5



CM 2

CRN 6726-47-2

CMF C4 H5 N3 O3



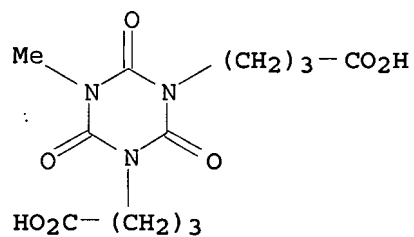
RN 681440-19-7 HCAPLUS

CN 1,3,5-Triazine-1,3(2H,4H)-dibutanoic acid, dihydro-5-methyl-2,4,6-trioxo-, polymer with 1,3-bis(oxiranylmethyl)-5-(2-propenyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione (9CI) (CA INDEX NAME)

CM 1

CRN 681440-18-6

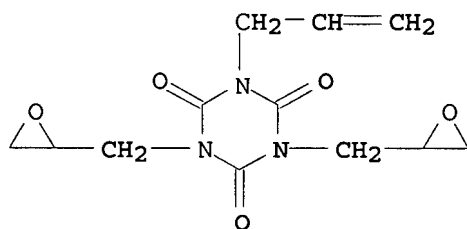
CMF C12 H17 N3 O7



CM 2

CRN 69731-45-9

CMF C12 H15 N3 O5



IT 681440-23-3P

(photolithog antireflective film compns. containing)

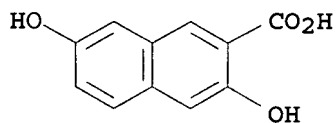
RN 681440-23-3 HCAPLUS

CN 2-Naphthalenecarboxylic acid, 3,7-dihydroxy-, polymer with
 1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione (9CI)
 (CA INDEX NAME)

CM 1

CRN 83511-07-3

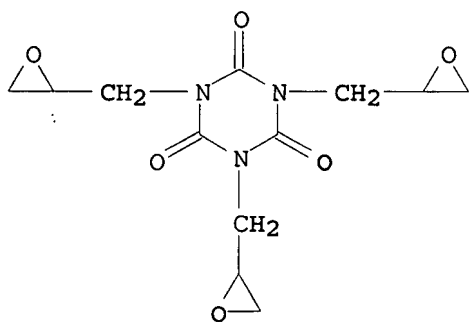
CMF C11 H8 O4



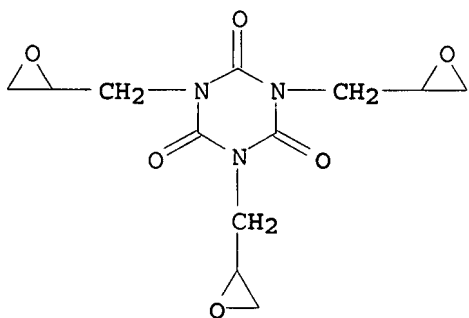
CM 2

CRN 2451-62-9

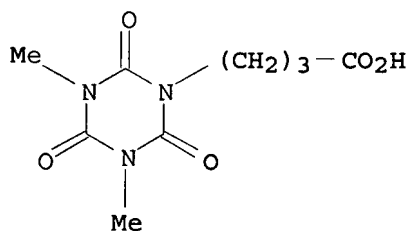
CMF C12 H15 N3 O6



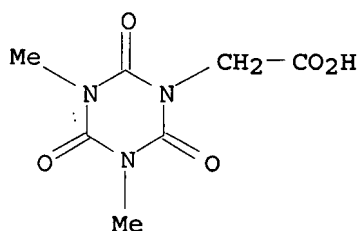
IT 2451-62-9, Tris(2,3-epoxypropyl)isocyanurate
 (reaction with carboxyalkyldimethylisocyanuric acids in preparation of
 antireflective coating composition component)
 RN 2451-62-9 HCAPLUS
 CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3,5-tris(2-oxiranylmethyl)-
 (CA INDEX NAME)



IT 681440-24-4 681440-25-5
 (reaction with tris(2,3-epoxypropyl) isocyanurate in preparation of
 antireflective coating composition component)
 RN 681440-24-4 HCAPLUS
 CN 1,3,5-Triazine-1(2H)-butanoic acid, tetrahydro-3,5-dimethyl-2,4,6-
 trioxo- (9CI) (CA INDEX NAME)



RN 681440-25-5 HCAPLUS
 CN 1,3,5-Triazine-1(2H)-acetic acid, tetrahydro-3,5-dimethyl-2,4,6-trioxo-
 (9CI) (CA INDEX NAME)

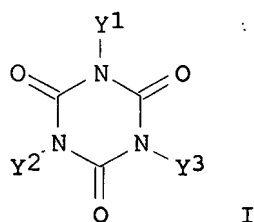


IC ICM G03F007-11
ICS H01L021-027
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 76
IT 681440-09-5P 681440-10-8P 681440-11-9P
681440-12-0P 681440-13-1P 681440-14-2P
681440-15-3P 681440-16-4P 681440-17-5P
681440-19-7P 681440-20-0P
(oligomeric; photolithog antireflective film compns. containing)
IT 681440-21-1P 681440-22-2P 681440-23-3P
(photolithog antireflective film compns. containing)
IT 2451-62-9, Tris(2,3-epoxypropyl)isocyanurate
(reaction with carboxyalkyldimethylisocyanuric acids in preparation of antireflective coating composition component)
IT 681440-24-4 681440-25-5
(reaction with tris(2,3-epoxypropyl) isocyanurate in preparation of antireflective coating composition component)
REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L43 ANSWER 6 OF 22 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2002:466084 HCAPLUS
DOCUMENT NUMBER: 137:47922
TITLE: Epoxy resins, their manufacture, epoxy resin compositions, and cured articles
INVENTOR(S): Kajji, Masashi; Ogami, Koichiro
PATENT ASSIGNEE(S): Nippon Steel Chemical Co., Ltd., Japan
SOURCE: PCT Int. Appl., 28 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002048235	A1	20020620	WO 2001-JP10798	20011210
W: CN, JP, KR, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
JP 2003176331	A	20030624	JP 2002-212673	20020722
US 2004024167	A1	20040205	US 2003-433365	20030604
US 6903180	B2	20050607		
PRIORITY APPLN. INFO.:			JP 2000-376351	A 20001211
			WO 2001-JP10798	A 20011210

ED Entered STN: 21 Jun 2002
GI



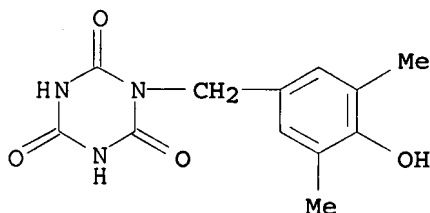
AB The invention relates to novel epoxy resins, and epoxy resin compns. or cured articles produced by using the resins. The cured articles are excellent in flame retardance, adhesion, water vapor resistance, and heat resistance, and suitably usable in lamination, molding, casting, adhesion, or the like. The epoxy resins are represented by the general formula I (Y1 = glycidyloxyarylmethyl group; Y2, Y3 = glycidyl, glycidyloxyarylmethyl group).

IT 436147-29-4P

(preparation of isocyanurate ring-containing epoxy resins)

RN 436147-29-4 HCAPLUS

CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1-[(4-hydroxy-3,5-dimethylphenyl)methyl]- (9CI) (CA INDEX NAME)

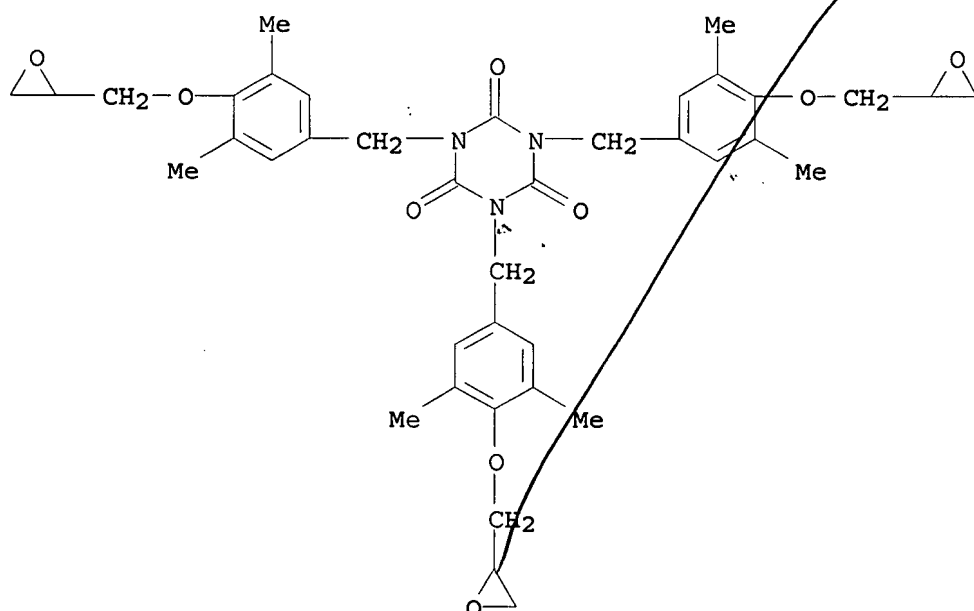


IT 436147-33-0P

(preparation of isocyanurate ring-containing epoxy resins)

RN 436147-33-0 HCAPLUS

CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3,5-tris[[3,5-dimethyl-4-(oxiranylmethoxy)phenyl]methyl]- (9CI) (CA INDEX NAME)



IC ICM C08G059-06

ICS C08G059-32; C08G059-62; C07D405-14

CC 37-3 (Plastics Manufacture and Processing)

Section cross-reference(s): 38

IT 436147-29-4P 436147-30-7P

(preparation of isocyanurate ring-containing epoxy resins)

IT 436147-33-0P

(preparation of isocyanurate ring-containing epoxy resins)

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L43 ANSWER 7 OF 22 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2000:865395 HCAPLUS

DOCUMENT NUMBER: 134:30015

TITLE: Thermosetting epoxy resin compositions with good mechanical and electric properties and processability

INVENTOR(S): Miyauchi, Yukio; Kano, Naoki

PATENT ASSIGNEE(S): Shikoku Chemicals Corp., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000344867	A	20001212	JP 1999-154388	19990601
JP 3477111	B2	20031210		

PRIORITY APPLN. INFO.: JP 1999-154388 19990601

ED Entered STN: 12 Dec 2000

AB The comps., useful for adhesives, coatings, elec. insulators,

sealants, laminated boards, etc., contain monoallyl diglycidyl isocyanurates and epoxy resin hardeners. Thus, a composition comprising monoallyl diglycidyl isocyanurate and 2E4MZ was cured to give a test piece showing flexural modulus 42,740 kg/cm², bending strength 1028 kg/cm², T_g 173°, and volume resistivity 0.92 + 10¹⁶ Ω-cm.

IT 311810-13-6P 311810-14-7P 311810-15-8P

311810-16-9P

(thermosetting epoxy resin compns. containing allyl glycidyl isocyanurate)

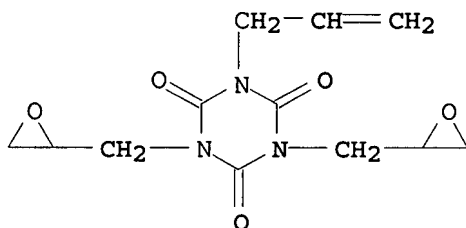
RN 311810-13-6 HCAPLUS

CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3-bis(oxiranylmethyl)-5-(2-propenyl)-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 69731-45-9

CMF C12 H15 N3 O5



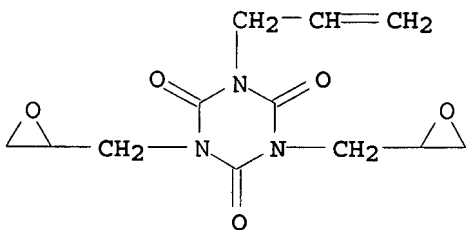
RN 311810-14-7 HCAPLUS

CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3-bis(oxiranylmethyl)-5-(2-propenyl)-, polymer with (chloromethyl)oxirane and 4,4'-(1-methylethylidene)bis[phenol] (9CI) (CA INDEX NAME)

CM 1

CRN 69731-45-9

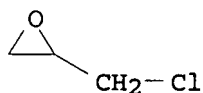
CMF C12 H15 N3 O5



CM 2

CRN 106-89-8

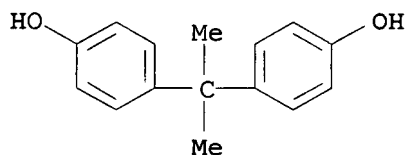
CMF C3 H5 Cl O



CM 3

CRN 80-05-7

CMF C15 H16 O2



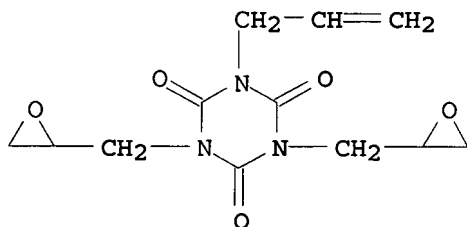
RN 311810-15-8 HCAPLUS

CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3-bis(oxiranylmethyl)-5-(2-propenyl)-, polymer with hexahydromethyl-1,3-isobenzofurandione (9CI)
(CA INDEX NAME)

CM 1

CRN 69731-45-9

CMF C12 H15 N3 O5

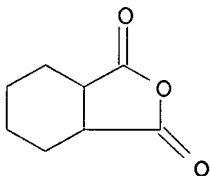


CM 2

CRN 25550-51-0

CMF C9 H12 O3

CCI IDS



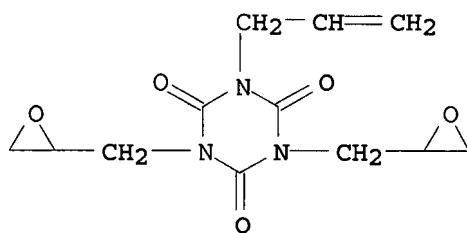
D1-Me

RN 311810-16-9 HCAPLUS
 CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3-bis(oxiranylmethyl)-5-(2-propenyl)-, polymer with (chloromethyl)oxirane, hexahydromethyl-1,3-isobenzofurandione and 4,4'-(1-methylethylidene)bis[phenol] (9CI) (CA INDEX NAME)

CM 1

CRN 69731-45-9

CMF C12 H15 N3 O5

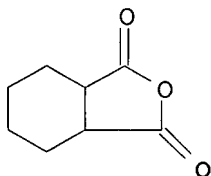


CM 2

CRN 25550-51-0

CMF C9 H12 O3

CCI IDS

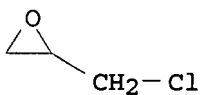


D1-Me

CM 3

CRN 106-89-8

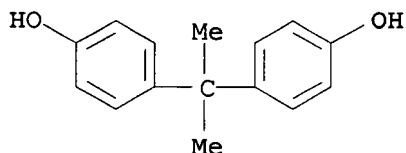
CMF C3 H5 Cl O



CM 4

CRN 80-05-7

CMF C15 H16 O2

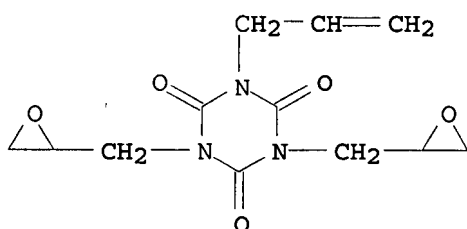


IT 69731-45-9P

(thermosetting epoxy resin compns. containing allyl glycidyl isocyanurate)

RN 69731-45-9 HCAPLUS

CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3-bis(2-oxiranylmethyl)-5-(2-propen-1-yl)- (CA INDEX NAME)

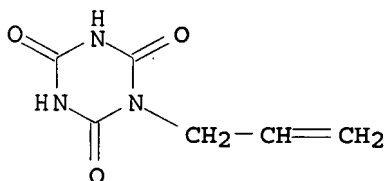


IT 3030-60-2, Allyl isocyanurate

(thermosetting epoxy resin compns. with good mech. and elec. properties and processability)

RN 3030-60-2 HCAPLUS

CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1-(2-propenyl)- (9CI) (CA INDEX NAME)



IC ICM C08G059-38

CC 37-6 (Plastics Manufacture and Processing)

Section cross-reference(s): 38, 42, 76

IT 311810-13-6P 311810-14-7P 311810-15-8P

311810-16-9P

(thermosetting epoxy resin compns. containing allyl glycidyl isocyanurate)

IT 69731-45-9P

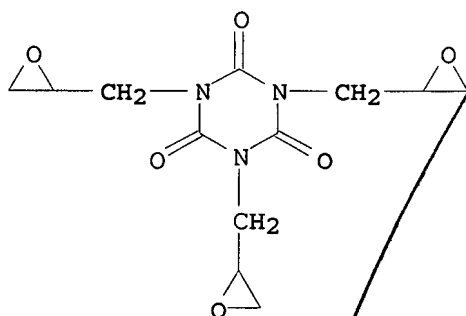
(thermosetting epoxy resin compns. containing allyl glycidyl isocyanurate)

IT 106-89-8, Epichlorohydrin, reactions 3030-60-2, Allyl isocyanurate

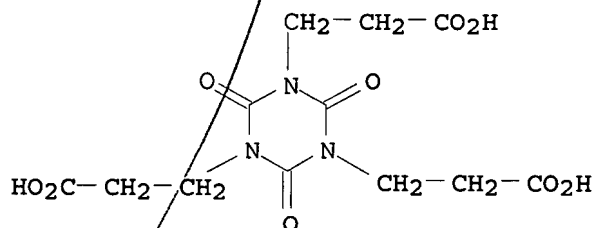
(thermosetting epoxy resin compns. with good mech. and elec. properties and processability)

L43 ANSWER 8 OF 22 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2000:151741 HCAPLUS
 DOCUMENT NUMBER: 133:44912
 TITLE: Tris(2-carboxyethyl)isocyanurate (CIC Acid) as crosslinking agent in coating
 AUTHOR(S): Sakamoto, Yukihiro; Iwasaki, Yoshiya; Nakagi, Junji
 CORPORATE SOURCE: Process Dev. Team, Shikoku Chemicals Corp., Japan
 SOURCE: Toso to Toryo (2000), 602, 31-34
 CODEN: TOTTAJ; ISSN: 0372-0527
 PUBLISHER: Toryo Shuppansha
 DOCUMENT TYPE: Journal; General Review
 LANGUAGE: Japanese
 ED Entered STN: 07 Mar 2000
 AB A review with 5 refs. on the properties of 2 chemical compds. as crosslinking agents for coatings; one is mentioned in the title and the other bis(2-carboxy Et)isocyanurate (their trade names are CIC Acid and Bis-CIC Acid resp.). Film properties of solvent-soluble coating containing triglycidyl isocyanurate as a base resin with CIC Acid and also of polyepoxide powder coating with a mixture of CIC Acid and dodecanedioic acid are described. CIC Acid derivs. having lower m.ps. are mentioned.
 IT 2451-62-9D, Triglycidyl isocyanurate, polymers (triscarboxyethyl isocyanurate as crosslinking agent in coatings)
 RN 2451-62-9 HCAPLUS
 CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3,5-tris(2-oxiranylmethyl)- (CA INDEX NAME)



IT 2904-41-8, Tris(2-carboxy ethyl)isocyanurate
 (triscarboxyethyl isocyanurate as crosslinking agent in coatings)
 RN 2904-41-8 HCAPLUS
 CN 1,3,5-Triazine-1,3,5(2H,4H,6H)-tripropanoic acid, 2,4,6-trioxo- (CA INDEX NAME)



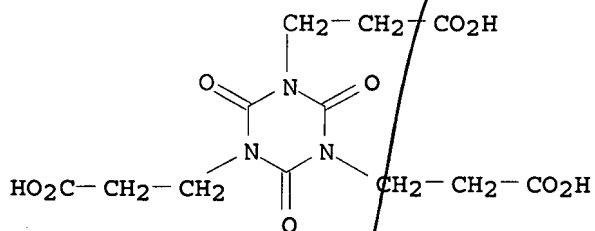
CC 42-0 (Coatings, Inks, and Related Products)
 IT 2451-62-9D, Triglycidyl isocyanurate, polymers

(triscarboxyethyl isocyanurate as crosslinking agent in coatings)
 IT 2904-41-8, Tris(2-carboxy ethyl)isocyanurate
 (triscarboxyethyl isocyanurate as crosslinking agent in coatings)

L43 ANSWER 9 OF 22 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1999:681479 HCAPLUS
 DOCUMENT NUMBER: 131:300634
 TITLE: Fire-resistant epoxy coating compositions
 INVENTOR(S): Sakamoto, Yukihiro; Hasebe, Akihisa; Nakagi, Junji
 PATENT ASSIGNEE(S): Shikoku Chemicals Corp., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11293189	A	19991026	JP 1998-101617	19980414
PRIORITY APPLN. INFO.:			JP 1998-101617	19980414

ED Entered STN: 27 Oct 1999
 AB Title compns., with good curability and providing colorless and transparent coatings with good adhesion to metal substrate, comprise an epoxy resin having >2 epoxy groups, 1,3,5-tris(2-carboxyethyl)isocyanurate, 1-50 weight% (based on the total weight of the epoxy resin and the isocyanurate) of non-halogen phosphoric acid esters, and 10-500 weight% (based on the total weight of rest of the components) an organic solvent with solubility parameter of 8.0-13.0. The equivalent ratio of the epoxy group in the epoxy resin to the carboxy group in the isocyanurate is in the range of 0.5-4.0.
 IT 2904-41-8, 1,3,5-Tris(2-carboxyethyl)isocyanurate
 (fire-resistant epoxy coating compns.)
 RN 2904-41-8 HCAPLUS
 CN 1,3,5-Triazine-1,3,5(2H,4H,6H)-tripropanoic acid, 2,4,6-trioxo- (CA INDEX NAME)

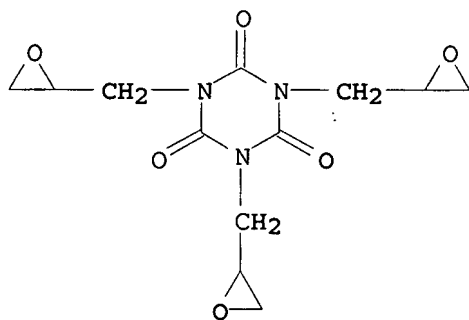


IT 28825-96-9, TEPIC S
 (fire-resistant epoxy coating compns.)
 RN 28825-96-9 HCAPLUS
 CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3,5-tris(2-oxiranylmethyl)-, homopolymer (CA INDEX NAME)

CM 1

CRN 2451-62-9

CMF C12 H15 N3 O6



IC ICM C09D163-06
 ICS C08G059-42; C07D251-34
 CC 42-9 (Coatings, Inks, and Related Products)
 IT 512-56-1, Trimethyl phosphate 2904-41-8,
 1,3,5-Tris(2-carboxyethyl)isocyanurate
 (fire-resistant epoxy coating compns.)
 IT 28825-96-9, TEPIC S
 (fire-resistant epoxy coating compns.)

L43 ANSWER 10 OF 22 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1999:680219 HCAPLUS

DOCUMENT NUMBER: 131:300633

TITLE: Epoxy resin coating compositions with good curability at relatively low temperature and adhesion to metal surface

INVENTOR(S): Sakamoto, Yukihiro; Hasebe, Akihisa; Nakaki, Junji

PATENT ASSIGNEE(S): Shikoku Chemicals Corp., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 3 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 11293187	A	19991026	JP 1998-100922	19980413
PRIORITY APPLN. INFO.:			JP 1998-100922	19980413

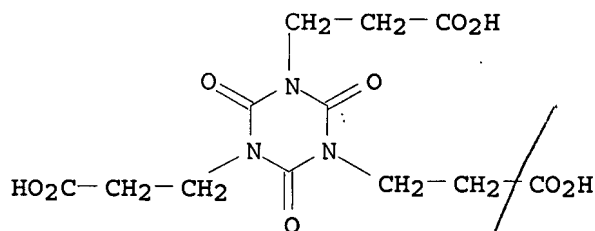
ED Entered STN: 26 Oct 1999

AB The compns. giving cured coat films with good transparency, comprise (A) epoxy resins bearing ≥ 2 epoxy groups, (B) 1,3,5-tris(2-carboxyethyl) isocyanurate (I) as curing agent, and organic solvents having solubility parameter 8.0-13.0 at the epoxy group/COOH (of I) equivalent ratio of 0.5-4.0:1 and solvent content 10-500% based on A+B. Thus, a composition of TEPIC-S (isocyanurate-type epoxy resin) 100, I 50, and DMF 200 parts showed gel time 40 s and pot life 4 days.

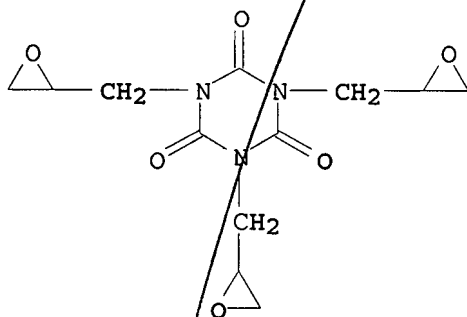
IT 2904-41-8, 1,3,5-Tris(2-carboxyethyl) isocyanurate
 (curing agents; epoxy resin coating compns. with good curability at relatively low temperature and adhesion to metal surface)

RN 2904-41-8 HCAPLUS

CN 1,3,5-Triazine-1,3,5(2H,4H,6H)-tripropanoic acid, 2,4,6-trioxo- (CA INDEX NAME)



IT 28825-96-9, TEPIC-S
 (epoxy resin coating compns. with good curability at relatively low temperature and adhesion to metal surface)
 RN 28825-96-9 HCAPLUS
 CN 1,3,5-Triazine-2,4,6-(1H,3H,5H)-trione, 1,3,5-tris(2-oxiranylmethyl)-, homopolymer (CA INDEX NAME)
 CM 1
 CRN 2451-62-9
 CMF C12 H15 N3 O6



IC ICM C09D163-00
 CC 42-9 (Coatings, Inks, and Related Products)
 IT 2904-41-8, 1,3,5-Tris(2-carboxyethyl) isocyanurate
 (curing agents; epoxy resin coating compns. with good curability at relatively low temperature and adhesion to metal surface)
 IT 28825-96-9, TEPIC-S
 (epoxy resin coating compns. with good curability at relatively low temperature and adhesion to metal surface)

L43 ANSWER 11 OF 22 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1998:768081 HCAPLUS
 DOCUMENT NUMBER: 130:38406
 TITLE: Preparation of substituted isocyanurates
 INVENTOR(S): Kato, Yuichi; Takayama, Yoshihiro; Kameyama, Akinori
 PATENT ASSIGNEE(S): Nippon Kasei Chemical Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10316665	A	19981202	JP 1997-137703	19970513
PRIORITY APPLN. INFO.:			JP 1997-137703	19970513

OTHER SOURCE(S): CASREACT 130:38406

ED Entered STN: 08 Dec 1998

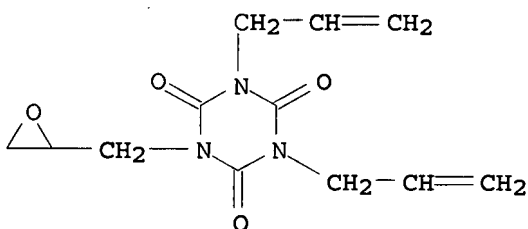
AB Glycidyl allyl isocyanurates, useful as curing agents for polymers (no data), are prepared by reaction of monoallyl isocyanurates or diallyl isocyanurates with 4-18 mol equivalent of epichlorohydrin in the presence of 0.005-0.15 mol equivalent of phase-transfer catalysts and 0.5-5 mol equivalent of H₂O and epoxidn. of 3-chloro-2-hydroxypropyl group-containing isocyanurates. Epichlorohydrin (499.5 g) was added with 94.0 g diallyl isocyanurate in the presence of 40.5 g H₂O and 4.5 g Me₄NBr at 88-119° for 1.5 h and epoxidized with NaOH at ≤40° for 1 h to give 96.3% monoglycidyl diallyl isocyanurate.

IT 20395-16-8P 69731-45-9P

(preparation of substituted isocyanurates by addition of isocyanurate with epichlorohydrin using phase-transfer catalysts and epoxidn.)

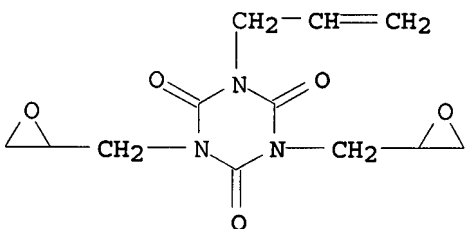
RN 20395-16-8 HCAPLUS

CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1-(2-oxiranylmethyl)-3,5-di-2-propen-1-yl- (CA INDEX NAME)



RN 69731-45-9 HCAPLUS

CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3-bis(2-oxiranylmethyl)-5-(2-propen-1-yl)- (CA INDEX NAME)

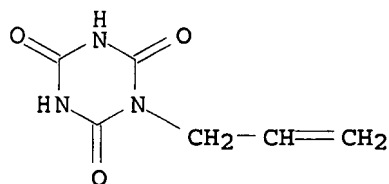


IT 3030-60-2

(preparation of substituted isocyanurates by addition of isocyanurate with epichlorohydrin using phase-transfer catalysts and epoxidn.)

RN 3030-60-2 HCAPLUS

CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1-(2-propenyl)- (9CI) (CA INDEX NAME)



IC ICM C07D251-34

ICS C07D251-34

CC 28-18 (Heterocyclic Compounds (More Than One Hetero Atom))

IT 20395-16-8P 69731-45-9P

(preparation of substituted isocyanurates by addition of isocyanurate with epichlorohydrin using phase-transfer catalysts and epoxidn.)

IT 3030-60-2 6294-79-7, Diallyl isocyanurate

(preparation of substituted isocyanurates by addition of isocyanurate with epichlorohydrin using phase-transfer catalysts and epoxidn.)

L43 ANSWER 12 OF 22 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1998:758661 HCAPLUS

DOCUMENT NUMBER: 130:52860

TITLE: Fluorine-containing graft polymers with good adhesion and their manufacture

INVENTOR(S): Kanno, Fukuo; Sato, Takashi; Yokota, Masataka; Kato, Yuichi

PATENT ASSIGNEE(S): Asahi Glass Co., Ltd., Japan; Nippon Kasei Chemical Co., Ltd.

SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10310615	A	19981124	JP 1997-137457	19970513
PRIORITY APPLN. INFO.:			JP 1997-137457	19970513

ED Entered STN: 03 Dec 1998

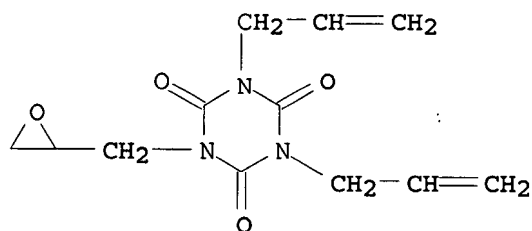
AB Title polymers are obtained by grafting allyl glycidyl isocyanurates onto F-containing polymers containing H bonded with C of the main chain. The polymers are manufactured by melt-blending the F-containing polymers, the isocyanurates, and radical generators at the temperature where radicals are generated. Thus, Aflon COP LM 740 (ethylene-tetrafluoroethylene copolymer), monoglycidyl diallyl isocyanurate (prepared from epichlorohydrin and diallyl isocyanurate), and dicumyl peroxide were melt-blended, extruded, and pelletized to give graft copolymer pellets showing melt index 4 g/10 min. Then, the pellets were extruded to give film showing wetting index 34 dyne/cm and adhesion strength to flexible poly(vinyl chloride) sheet 1.5 kg/cm.

IT 20395-16-8P 69731-45-9P

(in preparation of allyl glycidyl isocyanurates for fluoropolymer grafting)

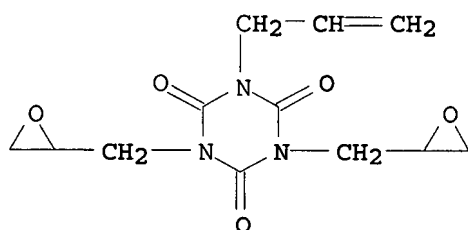
RN 20395-16-8 HCAPLUS

CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1-(2-oxiranylmethyl)-3,5-di-2-propen-1-yl- (CA INDEX NAME)



RN 69731-45-9 HCAPLUS

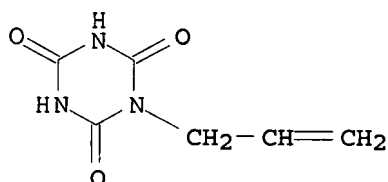
CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3-bis(2-oxiranylmethyl)-5-(2-propenyl)- (CA INDEX NAME)



IT 3030-60-2, Allyl isocyanurate
(in preparation of allyl glycidyl isocyanurates for fluoropolymer grafting)

RN 3030-60-2 HCAPLUS

CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1-(2-propenyl)- (9CI) (CA INDEX NAME)



IT 216859-14-2P 217456-60-5P
(preparation of F-containing polymers grafted with allyl glycidyl isocyanurates)

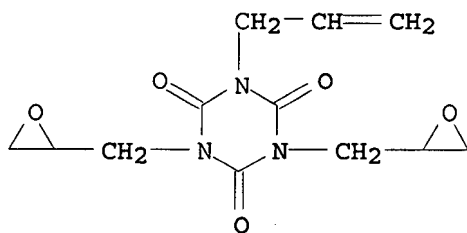
RN 216859-14-2 HCAPLUS

CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3-bis(oxiranylmethyl)-5-(2-propenyl)-, polymer with ethene and tetrafluoroethene, graft (9CI) (CA INDEX NAME)

CM 1

CRN 69731-45-9

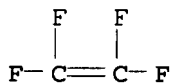
CMF C12 H15 N3 O5



CM 2

CRN 116-14-3

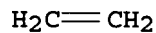
CMF C2 F4



CM 3

CRN 74-85-1

CMF C2 H4



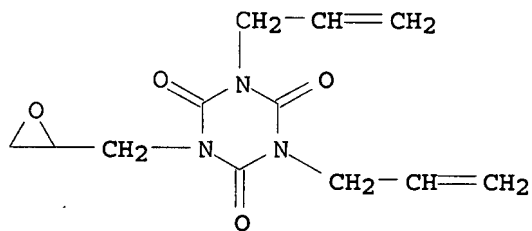
RN 217456-60-5 HCAPLUS

CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1-(oxiranylmethyl)-3,5-di-2-propenyl-, polymer with ethene and tetrafluoroethene, graft (9CI) (CA INDEX NAME)

CM 1

CRN 20395-16-8

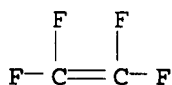
CMF C12 H15 N3 O4



CM 2

CRN 116-14-3

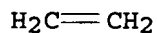
CMF C2 F4



CM 3

CRN 74-85-1

CMF C2 H4



IC ICM C08F259-08

CC 35-8 (Chemistry of Synthetic High Polymers)

IT 20395-16-8P 69731-45-9P

(in preparation of allyl glycidyl isocyanurates for fluoropolymer grafting)

IT 106-89-8, Epichlorohydrin, reactions 3030-60-2, Allyl

isocyanurate 6294-79-7, Diallyl isocyanurate

(in preparation of allyl glycidyl isocyanurates for fluoropolymer grafting)

IT 216859-14-2P 217456-60-5P

(preparation of F-containing polymers grafted with allyl glycidyl isocyanurates)

L43 ANSWER 13 OF 22 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1998:600079 HCAPLUS

DOCUMENT NUMBER: 129:261405

TITLE: Polyester compositions with good draw-down, impact, heat, and chemical resistances and high transparency and gloss

INVENTOR(S): Tokumizu, Shin; Yoshida, Atsushi; Fujimoto, Masaji

PATENT ASSIGNEE(S): Mitsubishi Rayon Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

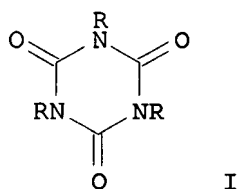
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

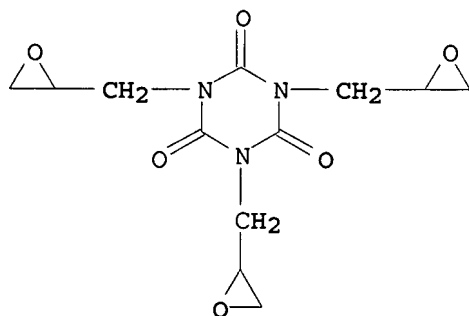
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 10245478	A	19980914	JP 1997-49131	19970304
PRIORITY APPLN. INFO.:			JP 1997-49131	19970304

ED Entered STN: 22 Sep 1998

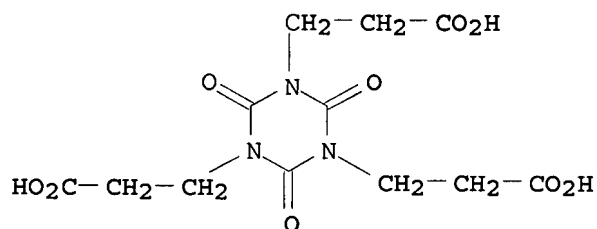
GI



- AB Title compns., useful for hollow containers, direct blow moldings, sheets, films, etc., comprise (A) 97-99.99% polyesters [intrinsic viscosity $[\eta]$; at 25° in phenol/tetrachloroethane (1/1) mixture] ≥ 0.5 dL/g] prepared from (a1) acid components containing 80-100 mol% aromatic dicarboxylic acids and their ester-formable derivs. and (a2) glycol components and (B) 0.01-3% isocyanuric acid derivs. I [R = glycidyl, R'H, R'CO₂H; R' = methylene, C2-4 alkylene, (C₂H₄O)_n n = 1-8]. Thus, a composition containing a polyester (prepared from 100 mol parts
- terephthalic acid and 120 mol parts ethylene glycol; $\eta = 0.80$ dL/g) and 0.02% (based on the polyester) 1,3,5-tris(2-hydroxyethyl)-isocyanurate was molded into a sheet, which showed good draw-down, impact, heat, and chemical resistances, transparency, and gloss.
- IT 2451-62-9 2904-41-8, 1,3,5-Tris(2-carboxyethyl) isocyanurate
(isocyanurate-containing polyester compns. with good draw-down, impact, heat, and chemical resistances, transparency, and gloss)
- RN 2451-62-9 HCAPLUS
- CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3,5-tris(2-oxiranylmethyl)- (CA INDEX NAME)



- RN 2904-41-8 HCAPLUS
- CN 1,3,5-Triazine-1,3,5(2H,4H,6H)-tripropanoic acid, 2,4,6-trioxo- (CA INDEX NAME)



IC ICM C08L067-03
ICS C08K005-3477
CC 37-6 (Plastics Manufacture and Processing)
IT 839-90-7, 1,3,5-Tris(2-hydroxyethyl) isocyanurate 2451-62-9
2904-41-8, 1,3,5-Tris(2-carboxyethyl) isocyanurate
213608-03-8, 1,3,5-Tris(hydroxybutyl) isocyanurate
(isocyanurate-containing polyester compns. with good draw-down, impact, heat, and chemical resistances, transparency, and gloss)

L43 ANSWER 14 OF 22 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1997:365821 HCAPLUS

DOCUMENT NUMBER: 127:18450

TITLE: Stabilized fire-resistant poly(alkylene terephthalate) compositions with excellent heat and thermal discoloration resistance

INVENTOR(S): Tsukahara, Yoshimitsu; Ihara, Hisaji; Akitsu, Masaharu; Kubo, Michihiro

PATENT ASSIGNEE(S): Sankyo Organic Chemicals Co., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 33 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09077962	A	19970325	JP 1996-127167	19960522
JP 3414930	B2	20030609		
PRIORITY APPLN. INFO.:			JP 1995-174917	A 19950711

ED Entered STN: 11 Jun 1997

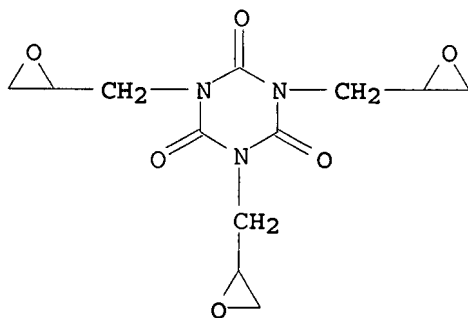
AB The title compns. are formed by adding epoxypropyl isocyanurate and hydrotalcite and/or zeolite to poly(alkylene terephthalate) fireproofed by Br-containing fireproofing agents. A composition from C7000 PBT 100, Fire Guard 7500 20, Sb2O3 5, triglycidyl isocyanurate 0.6, and hydrotalcite 0.1 part gave an injection molding with slight yellow coloration and degradation time (to brown at 255°) 130 min.

IT 2451-62-9 146692-58-2

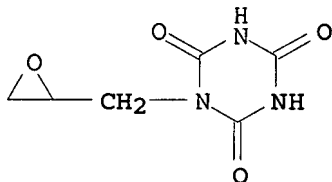
(stabilized fire-resistant poly(alkylene terephthalate) compns. with excellent heat and thermal discoloration resistance)

RN 2451-62-9 HCAPLUS

CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3,5-tris(2-oxiranylmethyl)- (CA INDEX NAME)



RN 146692-58-2 HCAPLUS
 CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1-(oxiranylmethyl)- (9CI) (CA INDEX NAME)



IC ICM C08L067-02
 ICS C08K003-26; C08K003-34; C08K005-03; C08K005-3477
 CC 37-6 (Plastics Manufacture and Processing)
 IT 2451-62-9 12363-58-5 25713-60-4, Pyroguard SR-245
 32588-76-4, Saytex BT-93W 52918-26-0, Diglycidyl isocyanurate
 146692-58-2 153067-78-8 163797-39-5 163858-94-4
 176791-39-2 189643-44-5
 (stabilized fire-resistant poly(alkylene terephthalate) compns.
 with excellent heat and thermal discoloration resistance)

L43 ANSWER 15 OF 22 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1996:391589 HCAPLUS
 DOCUMENT NUMBER: 125:59986
 TITLE: Novel epoxy compounds with triazine ring skeleton
 and their manufacture
 INVENTOR(S): Myake, Satoshi; Ikeda, Hisao; Hidaka, Motohiko;
 Moro, Takeo
 PATENT ASSIGNEE(S): Nissan Chemical Ind Ltd, Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08081461	A	19960326	JP 1994-217042	19940912
JP 3368680	B2	20030120		
PRIORITY APPLN. INFO.:			JP 1994-217042	19940912

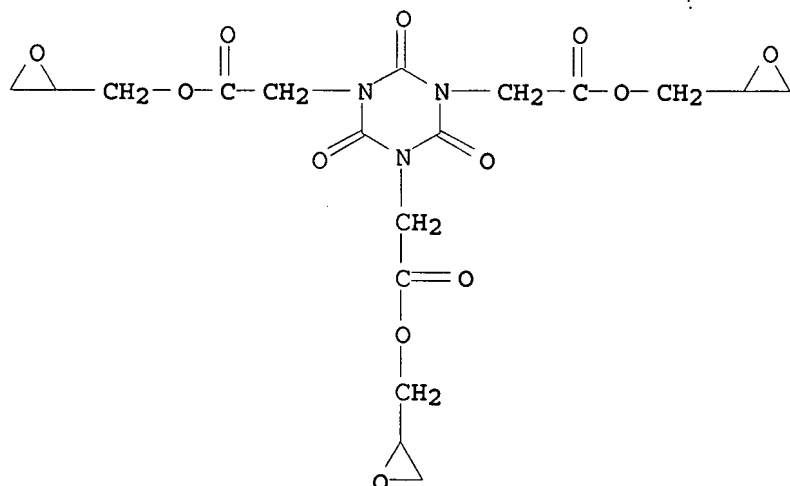
OTHER SOURCE(S): MARPAT 125:59986

ED Entered STN: 09 Jul 1996

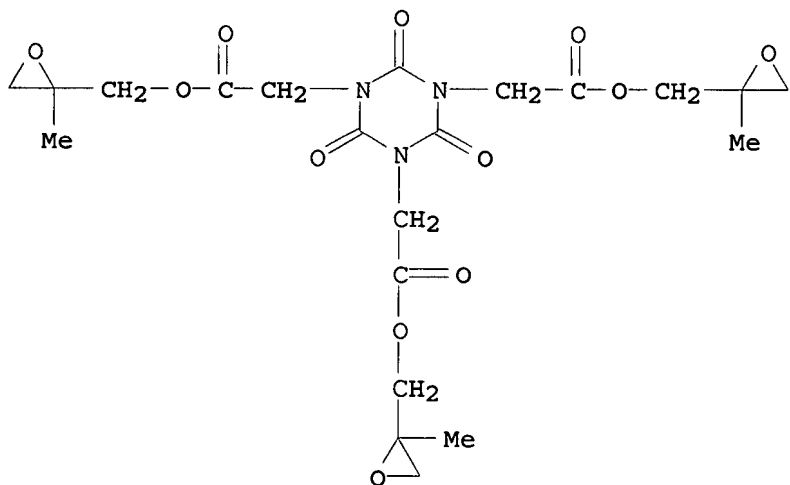
AB The epoxy compds. with good workability, giving resins with good weather and heat resistance are manufactured by addition reaction of tri(carboxyalkyl)isocyanurates with epihalohydrins and treating the resulting esters with an alkali substance. Refluxing tri(carboxymethyl)isocyanurate 101, α -epichlorohydrin 625, and Me₄N⁺ Cl⁻ 3 g at 100° and adding 120 g 50% NaOH over 3 h while removing the formed water and unreacted reactant gave tri(carboxymethyl)isocyanurate triglycidyl ester (I). I 100, Me humic anhydride 90.5, and DMP 30 3 parts gave a cured resin with glass temperature 195°.

IT 178200-12-9P 178200-13-0P 178200-14-1P
 (manufacture of novel epoxy compds. with triazine ring skeleton for resins with good heat and weather resistance)

RN 178200-12-9 HCAPLUS

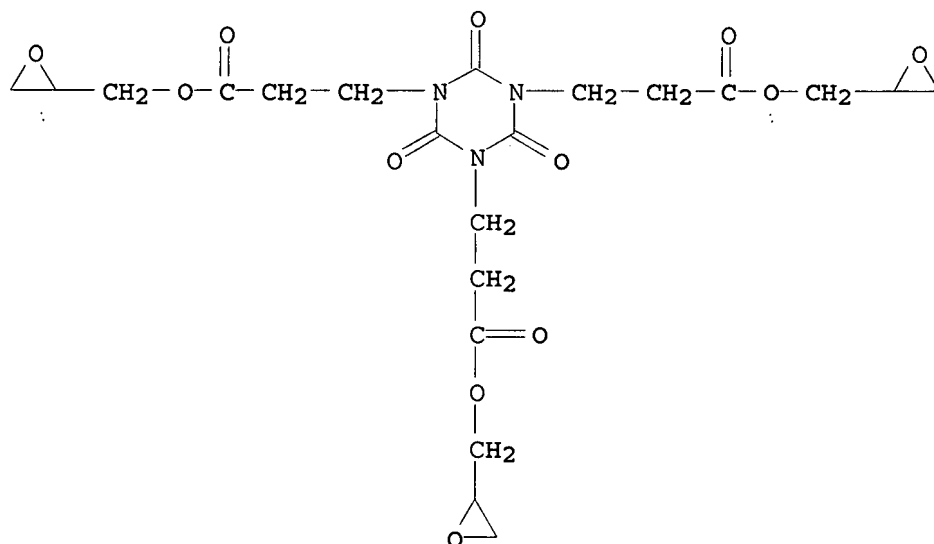
CN 1,3,5-Triazine-1,3,5(2H,4H,6H)-triacetic acid, 2,4,6-trioxo-,
tris(oxiranylmethyl) ester (9CI) (CA INDEX NAME)

RN 178200-13-0 HCAPLUS

CN 1,3,5-Triazine-1,3,5(2H,4H,6H)-triacetic acid, 2,4,6-trioxo-,
tris[(2-methyloxiranyl)methyl] ester (9CI) (CA INDEX NAME)

RN 178200-14-1 HCAPLUS

CN 1,3,5-Triazine-1,3,5(2H,4H,6H)-tripropanoic acid, 2,4,6-trioxo-,
tris(oxiranylmethyl) ester (9CI) (CA INDEX NAME)



IT 178200-15-2P 178200-16-3P 178200-17-4P

(manufacture of novel epoxy compds. with triazine ring skeleton for resins with good heat and weather resistance)

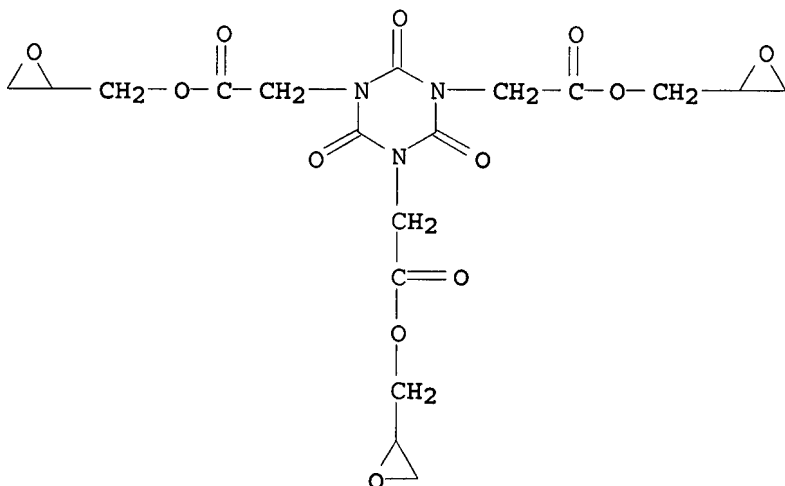
RN 178200-15-2 HCAPLUS

CN 1,3,5-Triazine-1,3,5(2H,4H,6H)-triacetic acid, 2,4,6-trioxo-, tris(oxiranylmethyl) ester, polymer with (3a α ,4 β ,7 β ,7a α)-3a,4,7,7a-tetrahydromethyl-4,7-methanoisobenzofuran-1,3-dione (9CI) (CA INDEX NAME)

CM 1

CRN 178200-12-9

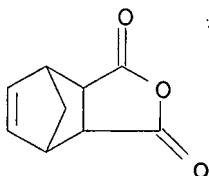
CMF C18 H21 N3 O12



CM 2

CRN 53584-57-9

CMF C10 H10 O3
CCI IDS

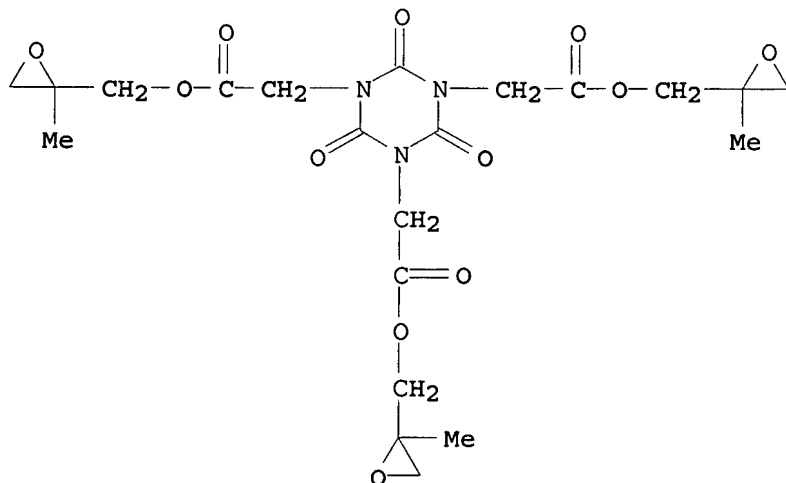


D1-Me

RN 178200-16-3 HCAPLUS
CN 1,3,5-Triazine-1,3,5(2H,4H,6H)-triacetic acid, 2,4,6-trioxo-,
tris[(2-methyloxiranyl)methyl] ester, polymer with
(3 α ,4 β ,7 β ,7 α)-3a,4,7,7a-tetrahydromethyl-4,7-
methanoisobenzofuran-1,3-dione (9CI) (CA INDEX NAME)

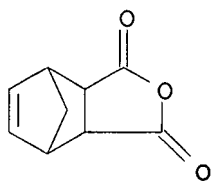
CM 1

CRN 178200-13-0
CMF C21 H27 N3 O12



CM 2

CRN 53584-57-9
CMF C10 H10 O3
CCI IDS

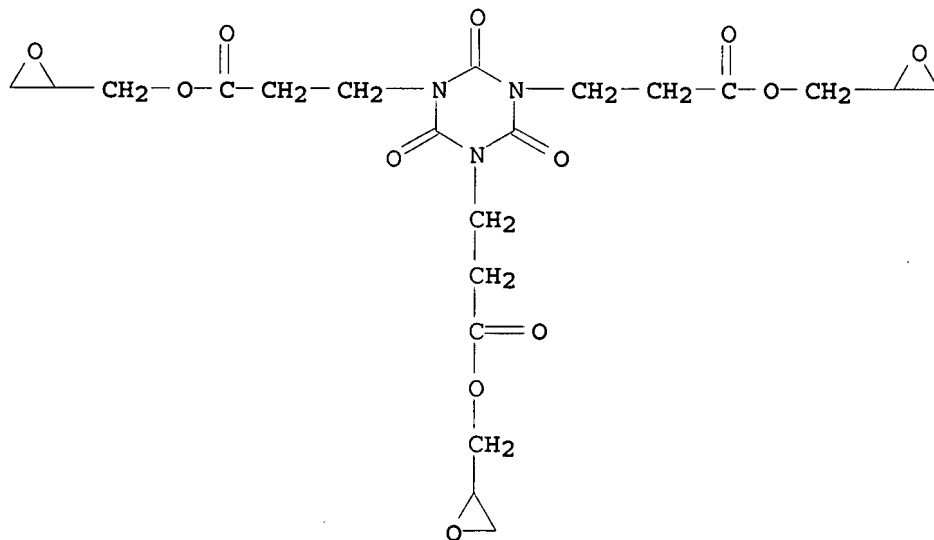


D1-Me

RN 178200-17-4 HCAPLUS
 CN 1,3,5-Triazine-1,3,5(2H,4H,6H)-tripropanoic acid, 2,4,6-trioxo-,
 tris(oxiranylmethyl) ester, polymer with (3 α ,4 β ,7 β ,7 α
 α)-3 α ,4,7,7 α -tetrahydromethyl-4,7-methanoisobenzofuran-1,3-dione
 (9CI) (CA INDEX NAME)

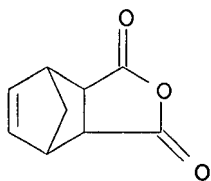
CM 1

CRN 178200-14-1
 CMF C21 H27 N3 O12



CM 2

CRN 53584-57-9
 CMF C10 H10 O3
 CCI IDS

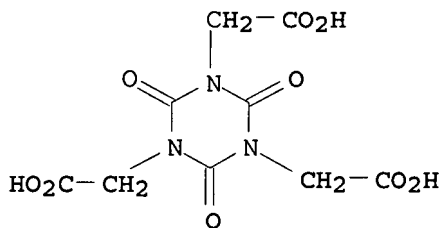


D1-Me

IT 1968-52-1 2904-41-8

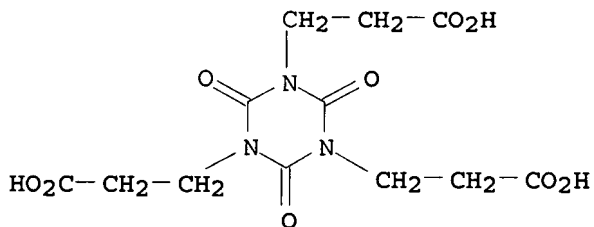
(reaction with epichlorohydrin; manufacture of novel epoxy compds. with triazine ring skeleton for resins with good heat and weather resistance)

RN 1968-52-1 HCAPLUS

CN 1,3,5-Triazine-1,3,5(2H,4H,6H)-triacetic acid, 2,4,6-trioxo- (9CI)
(CA INDEX NAME)

RN 2904-41-8 HCAPLUS

CN 1,3,5-Triazine-1,3,5(2H,4H,6H)-tripropanoic acid, 2,4,6-trioxo- (CA INDEX NAME)



IC ICM C07D405-14

ICS C08G059-32

ICI C07D405-14, C07D251-34, C07D303-48

CC 37-3 (Plastics Manufacture and Processing)

Section cross-reference(s): 35

IT 178200-12-9P 178200-13-0P 178200-14-1P

(manufacture of novel epoxy compds. with triazine ring skeleton for resins with good heat and weather resistance)

IT 178200-15-2P 178200-16-3P 178200-17-4P

(manufacture of novel epoxy compds. with triazine ring skeleton for resins with good heat and weather resistance)

IT 1968-52-1 2904-41-8

(reaction with epichlorohydrin; manufacture of novel epoxy compds. with

triazine ring skeleton for resins with good heat and weather resistance)

L43 ANSWER 16 OF 22 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1993:659565 HCAPLUS
 DOCUMENT NUMBER: 119:259565
 TITLE: Photopolymerizable composition containing
 interlinked allylic and epoxy polymer network
 INVENTOR(S): Breeveld, Ricardo Henry; Schutyser, Jan Andre
 Jozef
 PATENT ASSIGNEE(S): AKZO N. V., Neth.
 SOURCE: PCT Int. Appl., 42 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9311465	A1	19930610	WO 1992-EP2332	19921009
W: CA, JP, KR, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, SE				
PRIORITY APPLN. INFO.:			EP 1991-203191	A 19911206

ED Entered STN: 11 Dec 1993

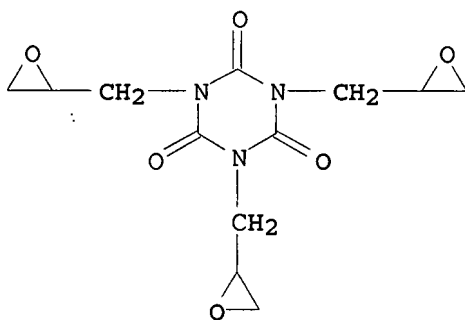
AB A photopolymerizable composition is described comprising a mixture of interpenetrating network-forming monomers and a photoinitiator, the interpenetrating network-forming monomers comprising ethylenically unsatd. compds. capable of forming a polymer network, and a mixture capable of forming an epoxy resin network. The polymer network is formed, at least partially, from allylic compds. Essentially the polymer network and the epoxy resin network are interlinked by means of a compound having both an ethylenically unsatd. functional group and a functional group reactive towards at least one of the ingredients in the epoxy resin network. Preferably, the compound is an ethylenically unsatd. epoxy crosslinker, such as maleic anhydride. The photopolymerizable composition, which optionally further comprises photopolymerizable vinylic monomers, a film-forming binder, solvents, pigments, and other additives, proves particularly useful as an additive plating resist or, if additive catalysts are added, as an electroless platable resist.

IT 2451-62-9 146692-58-2

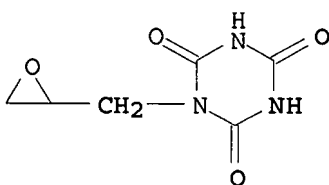
(photocrosslinkable composition containing)

RN 2451-62-9 HCAPLUS

CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3,5-tris(2-oxiranylmethyl)-
 (CA INDEX NAME)



RN 146692-58-2 HCAPLUS
 CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1-(oxiranylmethyl)- (9CI) (CA INDEX NAME)



IC ICM G03F007-027
 ICS H05K003-18; H05K003-46; C23C018-18
 CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 IT 101-37-1 108-31-6, 2,5-Furandione, uses 925-21-3 1025-15-6
 2451-62-9 3990-03-2 9003-35-4D, glycidyl ethers
 15625-89-5 24448-20-2 25068-38-6 25550-51-0 42610-22-0
 52918-26-0 146692-58-2
 (photocrosslinkable composition containing)

L43 ANSWER 17 OF 22 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1993:540514 HCAPLUS

DOCUMENT NUMBER: 119:140514

TITLE: Heat stabilizers for fire-resistant styrene polymer compositions

INVENTOR(S): Tsukahara, Yoshimitsu; Ihara, Hisaji; Yoshimura, Shigeto

PATENT ASSIGNEE(S): Sankyo Organic Chemicals Co, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05043757	A	19930223	JP 1991-202772	19910813
JP 2742479	B2	19980422		
PRIORITY APPLN. INFO.:			JP 1991-202772	19910813

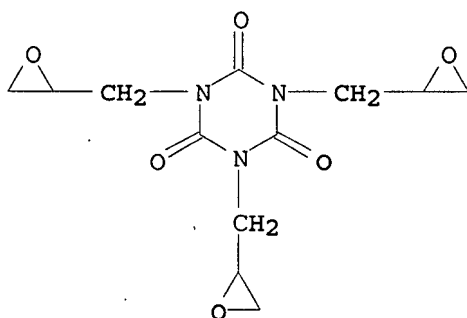
ED Entered STN: 02 Oct 1993

AB The title compns. comprising styrene polymers, polycarbonates, and Br-containing fireproofing agents are stabilized against thermal degradation by adding phosphate ester metal salts and, optionally, epoxypropyl isocyanurates. A mixture of Toyolac 100 50, Panlite L 1250 50, EBR 700 20, Sb2O3 3, and Na didecyl phosphate 0.5 part was used to prepare a laminate which was not discolored after 60 min at 265°.

IT 2451-62-9 146692-58-2
(heat stabilizers, for ABS-polycarbonate blends containing fire retardants)

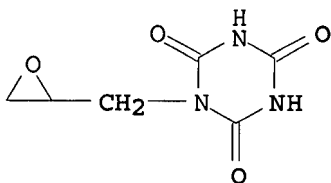
RN 2451-62-9 HCAPLUS

CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3,5-tris(2-oxiranylmethyl)- (CA INDEX NAME)



RN 146692-58-2 HCAPLUS

CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1-(oxiranylmethyl)- (9CI) (CA INDEX NAME)



IC ICM C08L025-02

ICS C08K005-02; C08K005-3477; C08K005-521; C08L069-00

CC 37-6 (Plastics Manufacture and Processing)

IT 2451-62-9 16686-86-5 51568-80-0 52918-26-0 56624-77-2
109572-94-3 146692-58-2 149991-05-9 149991-06-0
149991-07-1 149991-08-2 149991-09-3 149991-10-6 149991-11-7
149991-12-8 149992-53-0D, boron complexes
(heat stabilizers, for ABS-polycarbonate blends containing fire retardants)

L43 ANSWER 18 OF 22 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1993:148793 HCAPLUS

DOCUMENT NUMBER: 118:148793

TITLE: Heat-stabilization of flame-resistant polycarbonate-styrene resin compositions

INVENTOR(S): Tsukahara, Yoshimitsu; Ihara, Hisaji; Yoshimura, Shigeto

PATENT ASSIGNEE(S): Sankyo Organic Chemicals Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.

DOCUMENT TYPE: CODEN: JKXXAF
 LANGUAGE: Patent
 FAMILY ACC. NUM. COUNT: 1 Japanese
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04266956	A	19920922	JP 1991-28158	19910222
PRIORITY APPLN. INFO.:			JP 1991-28158	19910222

OTHER SOURCE(S): MARPAT 118:148793

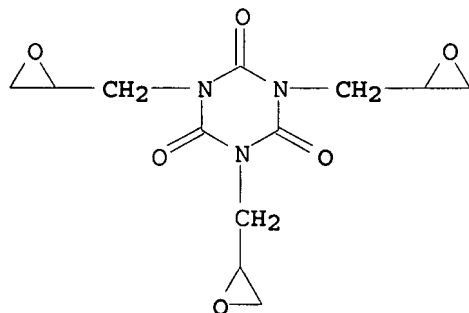
ED Entered STN: 13 Apr 1993

AB The title comps. containing styrene resins, polycarbonates, and bromide fireproofing agents are stabilized by adding ≥ 1 of epoxypropyl isocyanurate and phosphates (R1O)mP(O)(OH)3-m (R1 = alkyl, hydroxyalkyl, alkenyl, aryl, or cycloalkyl; m = 1 or 2). Thus, a composition of Toyolac 100 50, Panlite L1250 50, EBR 700 (epoxy oligomer) 18, Sb2O3 3, mono(epoxypropyl) isocyanurate 0.25, and (C18H37O)2P(O)OH (I) 0.25 part was kneaded at 185° for 3 min, sheeted, and hot pressed in 8 layers at 275° and 5 kg/cm2 to show degradation time 50 min., vs. 30 for a control without I.

IT 2451-62-9 146692-58-2
 (heat stabilizers, for fire-resistant polycarbonate-styrene polymer blends)

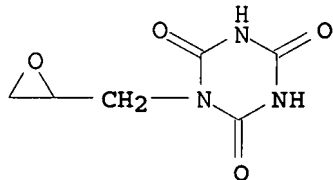
RN 2451-62-9 HCAPLUS

CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3,5-tris(2-oxiranylmethyl)- (CA INDEX NAME)



RN 146692-58-2 HCAPLUS

CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1-(oxiranylmethyl)- (9CI) (CA INDEX NAME)



IC ICM C08L025-04

ICS C08K005-02; C08K005-3477; C08K005-52; C08L069-00

CC 37-6 (Plastics Manufacture and Processing)

IT 1623-22-9 2451-62-9 2627-35-2 2958-09-0 3037-89-6
 3115-39-7 21150-89-0 27856-12-8 34332-96-2 42714-99-8
 52918-26-0 95907-55-4 146692-58-2 146692-59-3
 146692-60-6 146692-61-7 146692-62-8 146692-63-9
 (heat stabilizers, for fire-resistant polycarbonate-styrene polymer blends)

L43 ANSWER 19 OF 22 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1993:23139 HCAPLUS

DOCUMENT NUMBER: 118:23139

TITLE: Study of the structure and interaction of isocyanurates with a mineral filler

AUTHOR(S): Kotorlenko, L. A.; Novikova, O. A.

CORPORATE SOURCE: Inst. Probl. Materialoved., Kiev, USSR

SOURCE: Kompozitsionnye Polimernye Materialy (1979-1996?) (1990), 45, 1-8

CODEN: KPMAD8; ISSN: 0203-3275

DOCUMENT TYPE: Journal

LANGUAGE: Russian

ED Entered STN: 24 Jan 1993

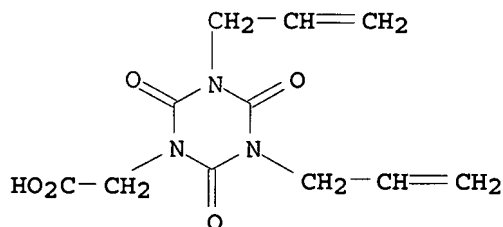
AB To study the interaction of diallyl isocyanurate derivs. with glass fibers, allyl, hydroxypropyl, epoxypropyl, carboxymethyl, and hydroxyethyl diallyl isocyanates adsorbed on silica gel were studied as a model system by IR spectroscopy. The semipolarity of the carbonyl bonds in the isocyanates was confirmed. Interaction of OH groups of the silica gel surface with the isocyanurate ring was considered. The quality of fiber lubricants based on isocyanuric acid derivs. increased with an increasing number of substituents capable of reaction with OH groups of the surface and increasing interaction.

IT 13915-42-9 20395-16-8, Diallyl epoxypropyl isocyanurate

(interaction of, with glass fibers, model systems for determination of)

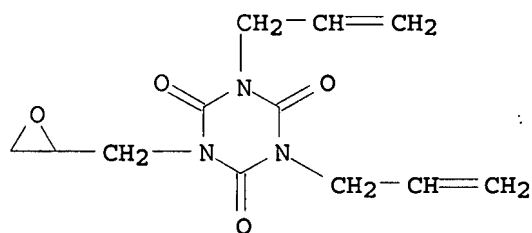
RN 13915-42-9 HCAPLUS

CN 1,3,5-Triazine-1(2H)-acetic acid, tetrahydro-2,4,6-trioxo-3,5-di-2-propenyl- (9CI) (CA INDEX NAME)



RN 20395-16-8 HCAPLUS

CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1-(2-oxiranylmethyl)-3,5-di-2-propen-1-yl- (CA INDEX NAME)



CC 37-6 (Plastics Manufacture and Processing)
 IT 839-88-3, Diallyl hydroxyethyl isocyanurate 1025-15-6, Triallyl
 isocyanurate 6294-79-7, Diallyl isocyanurate 13915-42-9
 14748-81-3 20395-16-8, Diallyl epoxypropyl isocyanurate
 (interaction of, with glass fibers, model systems for determination of)

L43 ANSWER 20 OF 22 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1981:497857 HCAPLUS

DOCUMENT NUMBER: 95:97857

TITLE: Cytostatic pharmaceutical compositions and
isocyanuric acid derivatives

INVENTOR(S): Fischer, Herbert; Budnowski, Manfred; Zeidler,
Ulrich

PATENT ASSIGNEE(S): Henkel K.-G.a.A., Fed. Rep. Ger.

SOURCE: Ger. Offen., 43 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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DE 3037094	A1	19810416	DE 1980-3037094	19801001
AT 7906552	A	19821215	AT 1979-6552	19791008
AT 371816	B	19830810		
NL 8005187	A	19810410	NL 1980-5187	19800917
DK 8003953	A	19810409	DK 1980-3953	19800918
SE 8006716	A	19810409	SE 1980-6716	19800925
FI 8003108	A	19810409	FI 1980-3108	19800930
SU 976849	A3	19821123	SU 1980-2990883	19801003
GB 2060633	A	19810507	GB 1980-32108	19801006
GB 2060633	B	19840321		
ZA 8006161	A	19810930	ZA 1980-6161	19801006
DD 153370	A5	19820106	DD 1980-224376	19801006
CA 1159064	A1	19831220	CA 1980-361580	19801006
BE 885555	A1	19810407	BE 1980-202350	19801007
NO 8002977	A	19810409	NO 1980-2977	19801007
ES 495697	A1	19811216	ES 1980-495697	19801007
FR 2484418	A1	19811218	FR 1980-21417	19801007
FR 2484418	B1	19850906		
HU 24864	A2	19830428	HU 1980-2442	19801007
HU 182210	B	19831228		
PL 125862	B1	19830630	PL 1980-227131	19801007
US 4393060	A	19830712	US 1980-194908	19801007
CH 648554	A5	19850329	CH 1980-7487	19801007
AU 8063063	A	19810416	AU 1980-63063	19801008
AU 551079	B2	19860417		
JP 56061374	A	19810526	JP 1980-141835	19801008

CA 1179266
PRIORITY APPLN. INFO.:

A2 19841211

CA 1983-435840
AT 1979-6552

19830831
A 19791008

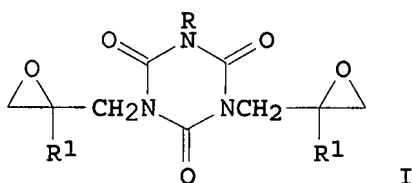
CA 1980-361580

A3 19801006

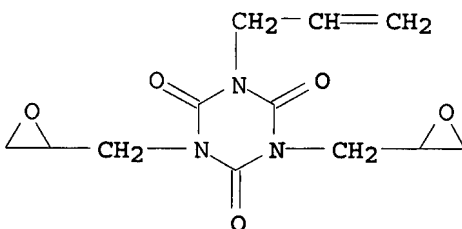
OTHER SOURCE(S): CASREACT 95:97857; MARPAT 95:97857

ED Entered STN: 12 May 1984

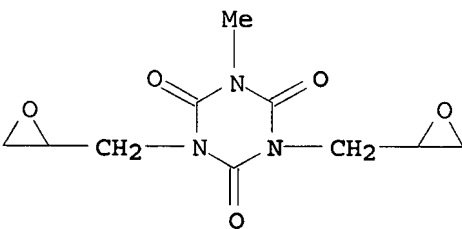
GI



- AB Diglycidylisocyanurates I (R = optionally substituted alkyl, aryl, cycloalkyl, heterocyclic; R1 = H, alkyl) were prepared. Thus, triallylisocyanurate was epoxidized to give I (R = allyl, R1 = H) and triglycidylisocyanurate, which was hydrolyzed to I [R = CH2CH(OH)CH2OH, R1 = H; II]. Three 50 mg/kg doses of II i.p. increased the survival time of leukemia P388-infected mice to 226%.
- IT 69731-45-9P 69804-58-6P 78627-41-5P
78627-42-6P 78627-44-8P 78627-46-0P
78627-47-1P 78627-48-2P 78627-49-3P
78627-50-6P 78627-51-7P 78639-55-1P
(preparation and antitumor activity of)
- RN 69731-45-9 HCAPLUS
- CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3-bis(2-oxiranylmethyl)-5-(2-propen-1-yl)- (CA INDEX NAME)

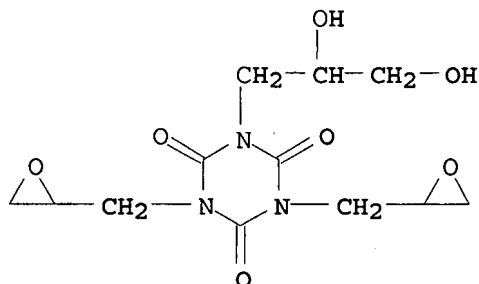


- RN 69804-58-6 HCAPLUS
- CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1-methyl-3,5-bis(oxiranylmethyl)- (9CI) (CA INDEX NAME)



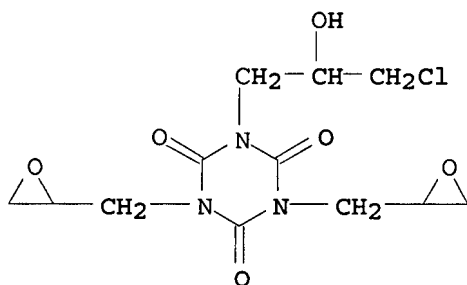
RN 78627-41-5 HCAPLUS

CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1-(2,3-dihydroxypropyl)-3,5-bis(oxiranylmethyl)- (9CI) (CA INDEX NAME)



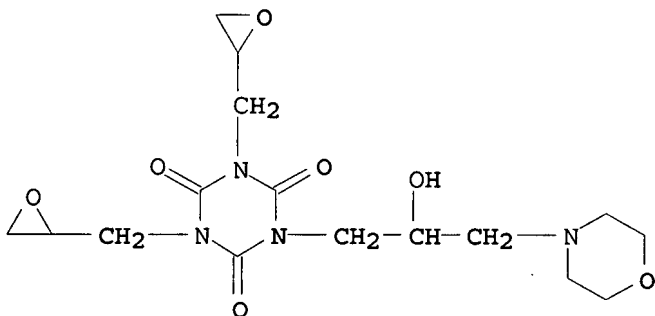
RN 78627-42-6 HCAPLUS

CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1-(3-chloro-2-hydroxypropyl)-3,5-bis(oxiranylmethyl)- (9CI) (CA INDEX NAME)



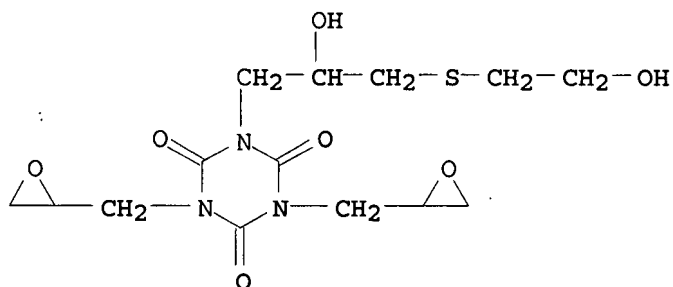
RN 78627-44-8 HCAPLUS

CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1-[2-hydroxy-3-(4-morpholinyl)propyl]-3,5-bis(oxiranylmethyl)- (9CI) (CA INDEX NAME)



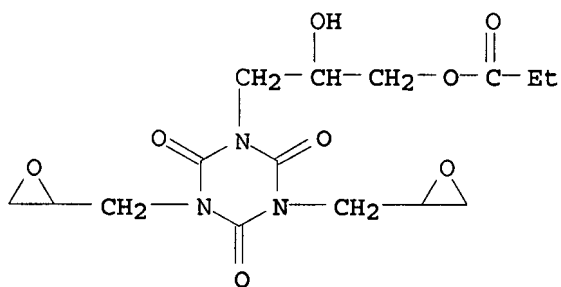
RN 78627-46-0 HCAPLUS

CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1-[2-hydroxy-3-[(2-hydroxyethyl)thio]propyl]-3,5-bis(oxiranylmethyl)- (9CI) (CA INDEX NAME)



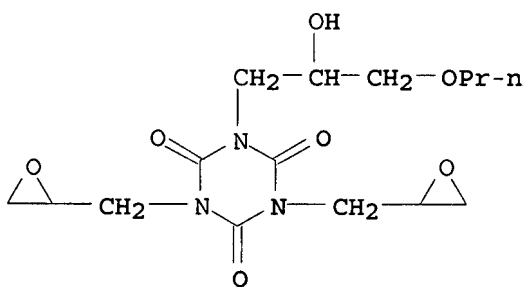
RN 78627-47-1 HCAPLUS

CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1-[2-hydroxy-3-(1-oxopropoxy)propyl]-3,5-bis(oxiranylmethyl)- (9CI) (CA INDEX NAME)



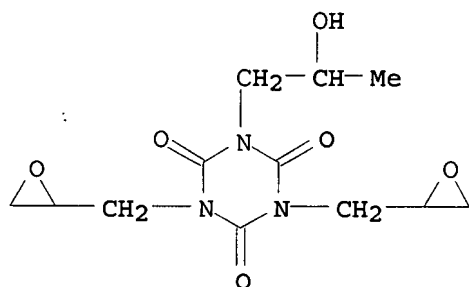
RN 78627-48-2 HCAPLUS

CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1-(2-hydroxy-3-propoxypropyl)-3,5-bis(oxiranylmethyl)- (9CI) (CA INDEX NAME)

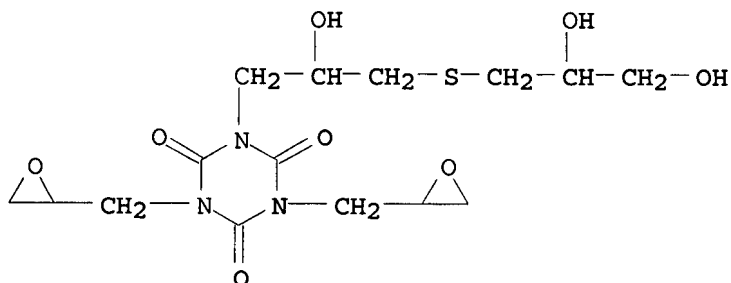


RN 78627-49-3 HCAPLUS

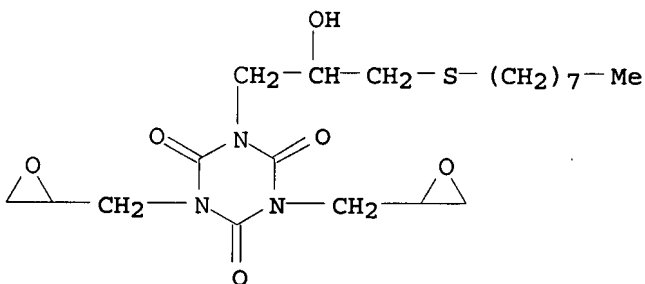
CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1-(2-hydroxypropyl)-3,5-bis(oxiranylmethyl)- (9CI) (CA INDEX NAME)



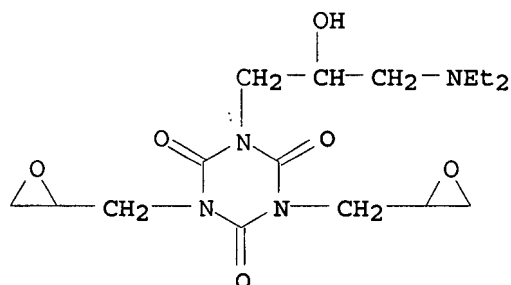
RN 78627-50-6 HCAPLUS
 CN 1,3,5-Triazine-2,4,6 (1H,3H,5H)-trione, 1-[3-[(2,3-dihydroxypropyl)thio]-2-hydroxypropyl]-3,5-bis(oxiranylmethyl)- (9CI)
 (CA INDEX NAME)



RN 78627-51-7 HCAPLUS
 CN 1,3,5-Triazine-2,4,6 (1H,3H,5H)-trione, 1-[2-hydroxy-3-(octylthio)propyl]-3,5-bis(oxiranylmethyl)- (9CI) (CA INDEX NAME)



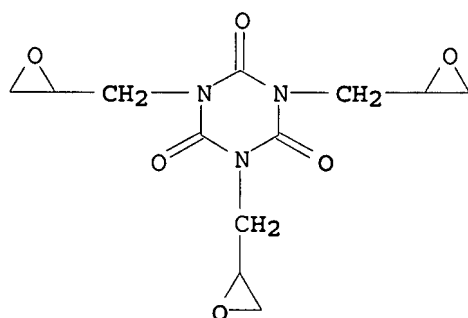
RN 78639-55-1 HCAPLUS
 CN 1,3,5-Triazine-2,4,6 (1H,3H,5H)-trione, 1-[3-(diethylamino)-2-hydroxypropyl]-3,5-bis(oxiranylmethyl)- (9CI) (CA INDEX NAME)



IT 2451-62-9P

(preparation and hydrolysis of)

RN 2451-62-9 HCAPLUS

CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3,5-tris(2-oxiranylmethyl)-
(CA INDEX NAME)

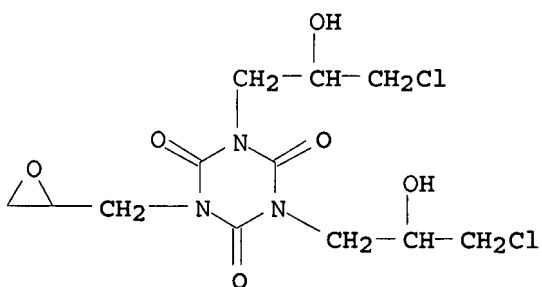
IT 53866-66-3P 53866-69-6P 78627-43-7P

78627-45-9P 78627-52-8P 78627-53-9P

(preparation of)

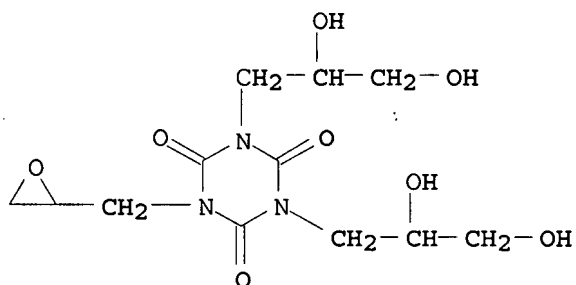
RN 53866-66-3 HCAPLUS

CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3-bis(3-chloro-2-hydroxypropyl)-5-(oxiranylmethyl)- (9CI) (CA INDEX NAME)



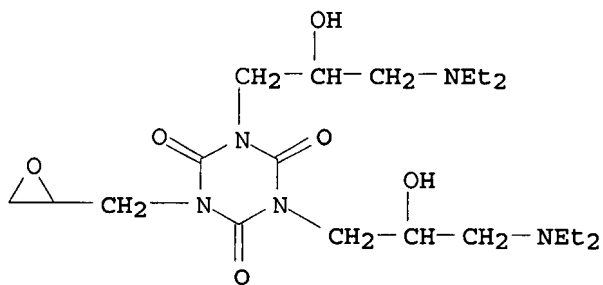
RN 53866-69-6 HCAPLUS

CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3-bis(2,3-dihydroxypropyl)-5-(oxiranylmethyl)- (9CI) (CA INDEX NAME)



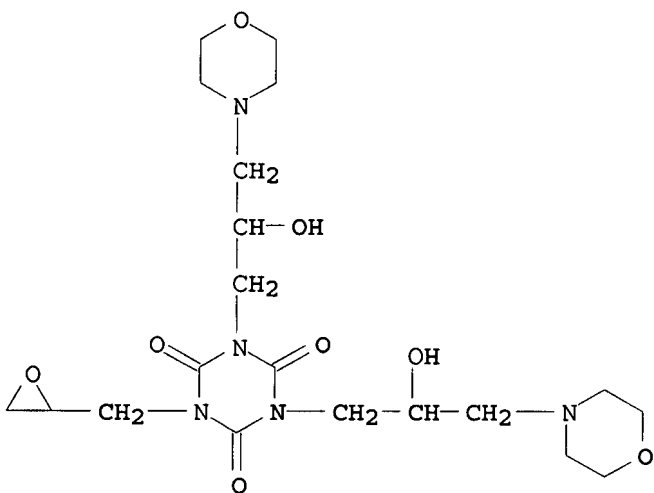
RN 78627-43-7 HCAPLUS

CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3-bis[3-(diethylamino)-2-hydroxypropyl]-5-(oxiranylmethyl)- (9CI) (CA INDEX NAME)



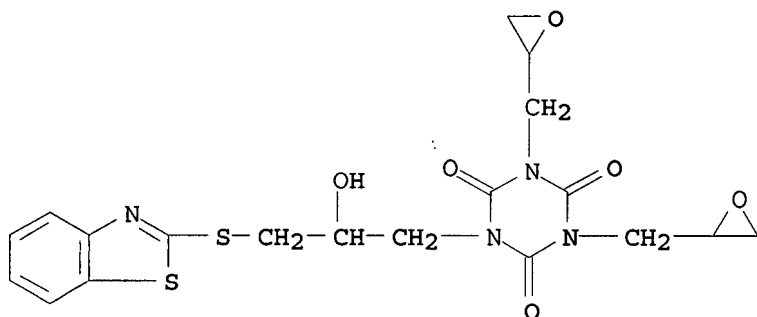
RN 78627-45-9 HCAPLUS

CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3-bis[2-hydroxy-3-(4-morpholinyl)propyl]-5-(oxiranylmethyl)- (9CI) (CA INDEX NAME)



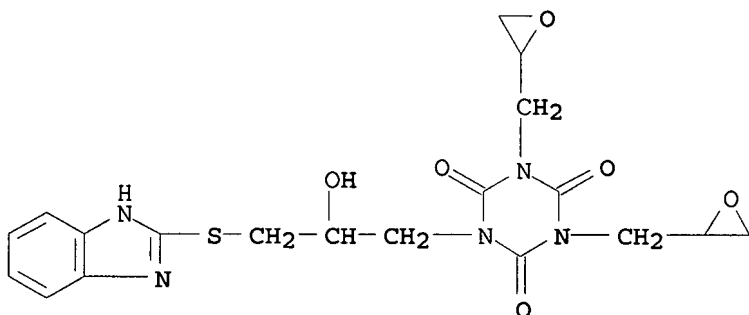
RN 78627-52-8 HCAPLUS

CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1-[3-(2-benzothiazolylthio)-2-hydroxypropyl]-3,5-bis(oxiranylmethyl)- (9CI) (CA INDEX NAME)



RN 78627-53-9 HCAPLUS

CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1-[3-(1H-benzimidazol-2-ylthio)-2-hydroxypropyl]-3,5-bis(oxiranylmethyl)- (9CI) (CA INDEX NAME)

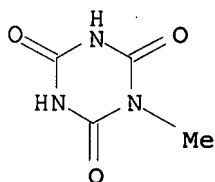


IT 6726-47-2

(reaction of, with epichlorohydrin)

RN 6726-47-2 HCAPLUS

CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1-methyl- (9CI) (CA INDEX NAME)



IC C07D405-06; C07D251-32; C07D413-06; A61K031-53

CC 28-21 (Heterocyclic Compounds (More Than One Hetero Atom))

IT 69731-45-9P 69804-58-6P 78627-41-5P

78627-42-6P 78627-44-8P 78627-46-0P

78627-47-1P 78627-48-2P 78627-49-3P

78627-50-6P 78627-51-7P 78639-55-1P

(preparation and antitumor activity of)

IT 2451-62-9P

(preparation and hydrolysis of)

IT 53866-66-3P 53866-69-6P 78627-43-7P

78627-45-9P 78627-52-8P 78627-53-9P

(preparation of)

IT 108-80-5 6726-47-2

(reaction of, with epichlorohydrin)

L43 ANSWER 21 OF 22 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1974:536892 HCAPLUS

DOCUMENT NUMBER: 81:136892

TITLE: Dependence of the physicommechanical properties of glass fiber-reinforced polyester plastics on the surface treatment of the glass fiber

AUTHOR(S): Abraimova, V. P.; Novikova, O. A.; Shevlyakov, A. S.

CORPORATE SOURCE: Inst. Khim. Vysokomol. Soedin., Kiev, USSR

SOURCE: Sintez i Fiziko-Khimiya Polimerov (1974), 13, 150-3

CODEN: SFKPAO; ISSN: 0583-4317

DOCUMENT TYPE: Journal

LANGUAGE: Russian

ED Entered STN: 12 May 1984

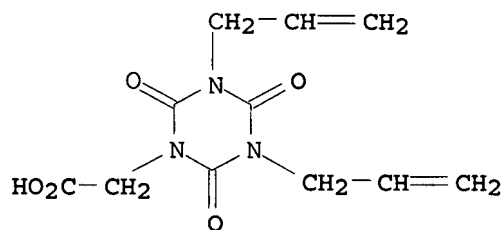
AB Surface treatment of glass fibers, used as reinforcement for polyester resins, with diallyl hydroxyethyl isocyanurate (I) [839-88-3], diallyl epoxypropyl isocyanurate (II) [20395-16-8], diallyl carboxymethyl isocyanurate (III) [13915-42-9] and diallyl hydroxybutyl isocyanurate (IV) [52794-84-0] was examined in fibers containing I and II as lubricants showed increased phys. mech. and elec. properties, compared to those treated with paraffin emulsions. I and II increased the resistance to water and cross-breaking strength of fibers, due to their solubility in water and softening of the fiber surface. They polymerize by themselves and contained allyl group which interacted with double bonds in unsatd. compds., forming a strong bond between the resins and glass fiber surface. The crystalline III had good adhesion properties but the lubricant film was rigid, brittle and decomposed on processing, whereas IV was unstable in storage, and the strength of fibers containing it decreased significantly on exposure to water. Mech. properties of plastics containing lubricants were directly dependent on their water absorption.

IT 13915-42-9 20395-16-8

(lubricants, for glass fiber, mech. and elec. properties of reinforced plastics in presence of)

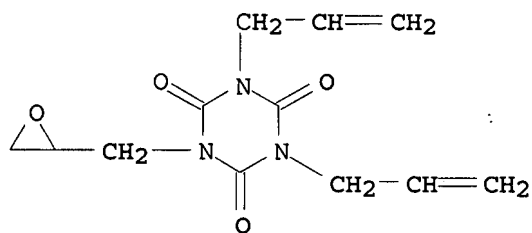
RN 13915-42-9 HCAPLUS

CN 1,3,5-Triazine-1(2H)-acetic acid, tetrahydro-2,4,6-trioxo-3,5-di-2-propenyl- (9CI) (CA INDEX NAME)



RN 20395-16-8 HCAPLUS

CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1-(2-oxiranylmethyl)-3,5-di-2-propen-1-yl- (CA INDEX NAME)



CC 36-6 (Plastics Manufacture and Processing)
 IT 839-88-3 13915-42-9 20395-16-8 52794-84-0
 (lubricants, for glass fiber, mech. and elec. properties of
 reinforced plastics in presence of)

L43 ANSWER 22 OF 22 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1974:71501 HCAPLUS

DOCUMENT NUMBER: 80:71501

TITLE: Evaluation of the effectiveness of potential
 finishing agents-lubricants

AUTHOR(S): Fainerman, A. E.; Lipatov, Yu. S.; Novikova, O.
 A.; Samoilenko, M. I.; Ivanova, G. V.

CORPORATE SOURCE: USSR

SOURCE: Plasticheskie Massy (1973), (9), 38-40

CODEN: PLMSAI; ISSN: 0554-2901

DOCUMENT TYPE: Journal

LANGUAGE: Russian

ED Entered STN: 12 May 1984

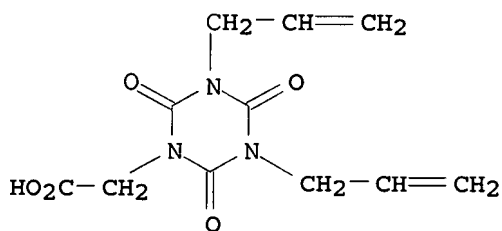
AB The effectiveness of 14 lubricants and finishing agents for glass
 reinforced plastic, such as diallyl isocyanurate (I) [6294-79-7] and
 12 alkyl derivs. such as hydroxyethyl diallyl isocyanurate (II)
 [839-88-3], 3-hydroxypropyl diallyl isocyanurate (III) [50978-73-9],
 or 4-hydroxybutyl diallyl isocyanurate (IV) [43193-30-2] was evaluated
 from surface tension data. The surface tension steadily decreased in
 the order II > III > IV. The phys. mech. properties of glass
 reinforced plastics modified with I derivs. were determined

IT 13915-42-9 20395-16-8

(lubricants, for glass fiber-reinforced plastics)

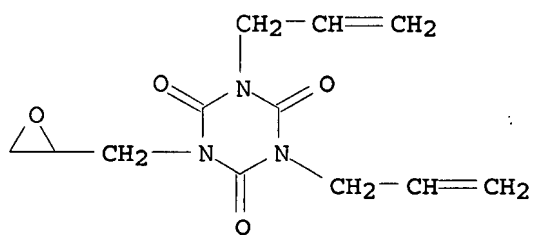
RN 13915-42-9 HCAPLUS

CN 1,3,5-Triazine-1(2H)-acetic acid, tetrahydro-2,4,6-trioxo-3,5-di-2-
 propenyl- (9CI) (CA INDEX NAME)



RN 20395-16-8 HCAPLUS

CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1-(2-oxiranylmethyl)-3,5-di-2-
 propen-1-yl- (CA INDEX NAME)



CC 36-6 (Plastics Manufacture and Processing)
IT 839-88-3 6294-79-7 13915-41-8 **13915-42-9**
20395-16-8 40254-50-0 43193-30-2 43193-32-4 43193-33-5
43193-34-6 50978-73-9 51348-03-9
(lubricants, for glass fiber-reinforced plastics)

=> d his nofile

(FILE 'HOME' ENTERED AT 07:27:37 ON 15 AUG 2007)

FILE 'HCAPLUS' ENTERED AT 07:28:00 ON 15 AUG 2007

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L2 2 SEA ABB=ON PLU=ON JP2002-295777/PRN,AP,PN

FILE 'REGISTRY' ENTERED AT 07:29:50 ON 15 AUG 2007

L3 19 SEA ABB=ON PLU=ON (11109-50-5/BI OR 2451-62-9/BI OR
681440-09-5/BI OR 681440-10-8/BI OR 681440-11-9/BI OR
681440-12-0/BI OR 681440-13-1/BI OR 681440-14-2/BI OR
681440-15-3/BI OR 681440-16-4/BI OR 681440-17-5/BI OR
681440-19-7/BI OR 681440-20-0/BI OR 681440-21-1/BI OR
681440-22-2/BI OR 681440-23-3/BI OR 681440-24-4/BI OR
681440-25-5/BI OR 9002-88-4/BI)
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L5 STR
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L7 STR L5
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L10 13 SEA SUB=L4 SSS SAM L9
L11 STR L9
L12 50 SEA SUB=L4 SSS SAM L11
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L14 14 SEA ABB=ON PLU=ON L13 AND L3
L15 5 SEA ABB=ON PLU=ON L3 NOT L14
SAV L13 LEE349/A
L16 STR L7
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SAV L24 LEE349C/A
L25 STR L5
L26 0 SEA SUB=L13 SSS SAM L25
L27 0 SEA SUB=L13 SSS FUL L25
L28 0 SEA SUB=L13 SSS SAM L25
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L32 0 SEA SUB=L13 SSS SAM L31
L33 1363 SEA SUB=L4 SSS FUL L29
L34 27 SEA SUB=L33 SSS SAM L31
L35 457 SEA SUB=L33 SSS FUL L31
SAV L35 LEE349D/A
L36 0 SEA ABB=ON PLU=ON L21 AND L24 AND L35

FILE 'HCAPLUS' ENTERED AT 08:05:05 ON 15 AUG 2007

L37 152 SEA ABB=ON PLU=ON L24
L38 214 SEA ABB=ON PLU=ON L35
L39 2081 SEA ABB=ON PLU=ON L21

L40	1	SEA	ABB=ON	PLU=ON	L37 AND L38 AND L39
L41	12	SEA	ABB=ON	PLU=ON	L39 AND L38
L42	11	SEA	ABB=ON	PLU=ON	L39 AND L37
L43	22	SEA	ABB=ON	PLU=ON	(L41 OR L42)